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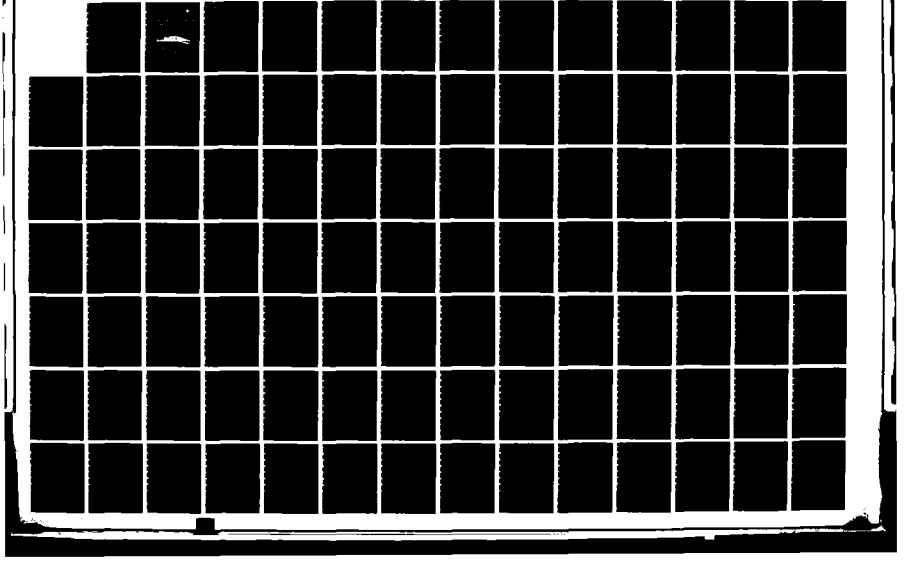
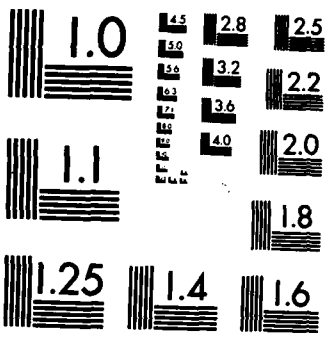


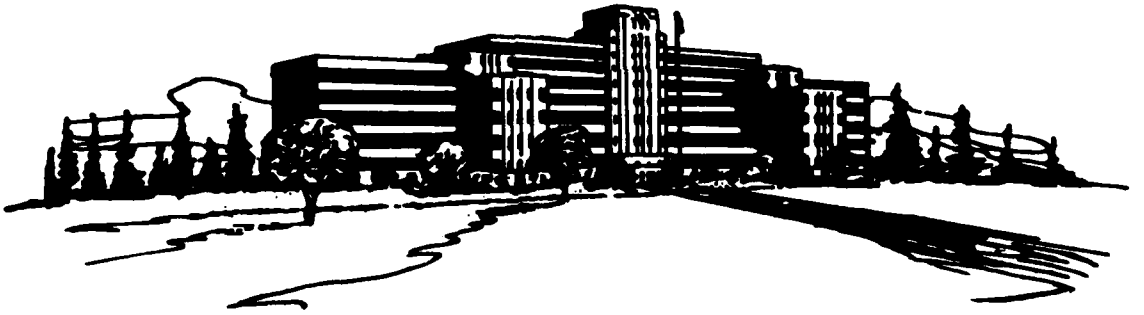


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Laboratory
Report No. 19

CLINICAL INVESTIGATION PROGRAM ANNUAL PROGRESS REPORT

30 September 1983



DEPARTMENT OF CLINICAL INVESTIGATION

Fitzsimons Army Medical Center
Aurora, Colorado 80045

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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18. SUPPLEMENTARY NOTES

The findings of subject report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Clinical Investigations, all medical specialties
Experimental Projects (planning, coordination, staff supervision, execution, review and monitoring)
Research Protocols
In-house Research (continued on reverse side)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Subject report idientifies the research activities conducted by Fitzsimons Army Medical Center investigators through protocols approved by the Institutional Review Committee and registered with the Department of Clinical Investigation during Fiscal Year 1983 and other known presentations and publications by the Fitzsimons Army Medical Center professional staff. The research protocols described were conducted under the provisions of AR 40-38, as amended, Clinical Investigation Program, AR 40-7, Use of Investigational Drugs in Humans, AR 70-25 HSC Reb 40-23, as amended (continued on reverse side)

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Block 19. Key Words

Publications, Presentations of research data (at national, international and regional science meetings)
Post Graduate Educational Programs
Protocol Training and Support Programs
Protocol Registration
Protocol Status (ongoing, completed, terminated)
Technological Base (personnel and equipment)
Experimental Design (statistical tools, etc.)

Block 20. Abstract

Management of Clinical Investigation Protocols and Reports, Use of Volunteers as subjects of research and AR 40-38, as amended, Department of Clinical Investigation, policies and procedures, to insure the medical well-being, preservation of rights and dignity of human subjects who participated in these investigations.

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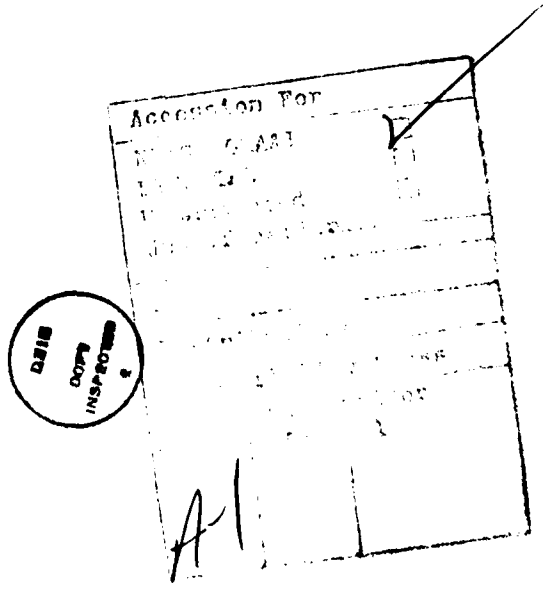

DEPARTMENT OF CLINICAL INVESTIGATION

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CLINICAL INVESTIGATION PROGRAM
ANNUAL PROGRESS REPORT

30 SEPTEMBER 1983

CLINICAL INVESTIGATIONS (U)

FITZSIMONS ARMY MEDICAL CENTER

AURORA, COLORADO 80045

FOREWORD

"When the Lord created the world and people to live in it - an enterprise which, according to modern science, took a very long time - I could well imagine that He reasoned with himself as follows: "If I make everything predictable, these human beings, whom I have endowed with pretty good brains, will undoubtedly learn to predict every thing, and they will thereupon have no motive to do anything at all, because they cannot be influenced by any human action. On the other hand, if I make everything unpredictable, they will gradually discover that there is no rational basis for any decision whatsoever and, as in the first case, they will thereupon have no motive to do anything at all. Neither scheme would make sense. I must therefore create a mixture of the two. Let some things be predictable and let others be unpredictable. They will then, amongst many other things, have the very important task of finding out which is which."

E.F. Schumacher
From "Small is Beautiful"

"One must learn by doing the thing; for though you think you know it, you have no certainty until you try."

Sophocles

Experiment!
Make it your motto day and night.
Experiment,
And it will lead you to the light.

The apple on the top of the tree
Is never too high to achieve,
So take an example from Eve . . .
Experiment!
Be curious,
Though interfering friends may frown.
Get furious
At each attempt to hold you down.
If this advice you only employ,
The future can offer you infinite joy
And Merriment . . .
Experiment!
And you'll see!

Cole Porter

This report identifies the research activities conducted by Fitzsimons Army Medical Center investigators through protocols

approved by the Institutional Review Committee and registered with the Department of Clinical Investigation during Fiscal Year 1983 along with other known presentations and publications by FAMC professional staff.

The research protocols described in this report were conducted under the provisions of AR 40-38, as amended, Clinical Investigation Program, AR 40-7, Use of Investigational Drugs in Humans, AR 70-25, Use of Volunteers as Subjects of Research, and HSC Reg 40-23, as amended, Management of Clinical Investigation Protocols and Reports, to insure the medical safety, well being, preservation of rights and dignity of human subjects who participated in these investigations.

In conducting the research described in this report, the investigator(s) adhered to AR 70-18, Laboratory Animals, Procurement, Transportation, Use, Care, and Public Affairs and the "Guide for Laboratory Aniimal Facilities and Care", as promulaged by the Committee or the Guide for Laboratory Animal Resources, National Academy of Sciences, National Research Council.

The Department of Clinical Investigation is especially grateful to BRIGADIER GENERAL William R. Dwyre, MC, Commanding General of Fitzsimons Army Medical Center, his professional and administrative staff, and to the Commanding Officers and staffs of other supporting activities for the cooperation and assistance provided this Department of Clinical Investigation in our efforts to accomplish our mission. Finally, I would like to recognize the outstanding work, dedication, and wholehearted corroboration of my entire staff. I would especially like to thank my Protocol/-Editorial Assistant, Ms. Val McCrill and Mrs. Nancy Moran, Secretary, without whose assistance and support this report would not have been possible.

Donald G. Corby

DONALD G. CORBY, M.D.
Colonel, MC
Chief, Department of Clinical Investigation

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DETAIL SUMMARY SHEETS

MEDICINE

Ongoing (O), Completed (C), Terminated (T), Published (P) or Submitted for Publication (SP), Presentations (PR).

Ongoing (O), Completed (C), Terminated (T), Published (P) or Submitted for Publication (SP), Presentations (PR).

Ongoing (O), Completed (C), Terminated (T), Published (P) or Submitted for Publication (SP), Presentations (PR).

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Ongoing (O), Completed (C), Terminated (T), Published (P) or Submitted for Publication (SP), Presentations (PR).

UNIT SUMMARY

UNIT SUMMARY

Clinical Investigation Program, FAMC

Clinical Investsigation efforts by FAMC personnel in FY 83 culminated in the publication of 122 articles and 121 presentations and lectures at national, international, and regional scientific meetings. As of 30 September 1983, there were 141 research protocols on the DCI register. Of these, 97 projects were ongoing and 45 were new registrations.

Objectives:

To encourage the performance of clinically-oriented investigation by personnel assigned to the Fitzsimons Army Medical Center (FAMC). To aid in the planning, development, support, and execution of experimental clinical studies, both in patients and by directly related laboratory work, into the clinical problems of significant concern in the health care of members of the military community. To provide physician experience in research and investigative procedures by furnishing a highly educated and trained staff of specialists, laboratory facilities, administrative services and funding for: supplies, equipment, consultants, publications and reprints. To achieve continuous improvement in the quality of patient care by providing an atmosphere of inquiry, maintaining high professional standing and accreditation of advanced health programs.

The Clinical Investigation Program differs from Medical Research and Development in that the emphasis is on the health care problems existing in our patient populations, i.e.; active duty, retired, and dependents and not solely on medical problems affecting combat readiness and the fighting strength. It is, by its nature, an integral part of the triad of patient care and medicine. It promotes and supports the finest ideals and traditions of Military Medicine and enhances the vitality of the teaching programs which in turn elevates the standard of medical care. The research program operates on the premise that all approved protocols will be supported to the fullest extent allowed by current funding. This concept allows for a larger number of physicians and ancillary personnel to participate in research rather than as in the grant system used elsewhere. This means that virtually every investigator is given a chance to pursue his research without having to compete for funds with "established" names in the field.

Technical Approach:

This support, direction and management is carried out under the aegis of AR 40-38, as amended, Clinical Investigation Program; AR

40-7, Use of Investigational Drugs in Humans; AR 70-25, Use of Volunteers as Subjects in Research; AR 70-18, Laboratory Animals, Procurement, Transportation, Use, Care, and Public Affairs; HSC Reg 40-23, Management of Clinical Investigation Protocols and Reports, as amended; FAMC Reg 15-2, Institutional Review Committee. This Department provides guidance, assistance, and coordinates the FAMC program with higher headquarters and other facilities.

Manpower: Current authorized strength is outlined.

Description	Grade	MOS	Br	Auth	Req	Act	Name
Chief Dept Clin Inv	06	60P9B	MC	1	1	1	Corby
C, Micro Svc	05	68A00	MSC	1	1	1	Engelkirk
Lab Res Mgr	04	68F00	MSC	0	1	1	Quigg
C, Biochem Svc	04	68C00	MSC	1	1	1	Zolock
C, Immunol Svc	03	68A00	MSC	1	1	1	Whiteaker
C, Surg Res Labs Svc	03	68J00	MSC	1	1	1	Harbell
Veterinarian	03	68F00	VC	0	0	1	Smith
Veterinarian	03	68F00	VC	1	1	1	McCullen
NCOIC-Med Lab	E7	92B4R		1	1	1	Engle
Sr Med Lab SP	E6	92B3R		1	1	1	Fernandez
Operating Rm Sp	E5	91D2R		1	1	1	Robbins
Bio Sci Asst	E5	01H2R		1	1	1	Kramer
Bio Sci Asst	E6	01H3R		1	1	1	Chadwick
Bio Sci Asst	E5	01H2R		1	1	1	Jones
Bio Sci Asst	E4	01H3R		1	1	1	Sanders
Vet Sp	E5	91T2R		1	2	1	Turner
Supv Res Chem	13	1320		1	1	1	O'Barr

Description	Grade	MOS	Br	Auth	Req	Act	Name
Microbiologist	11	0403	GS	2	2	2	Lima Paine
Microbiologist	09	0403	GS	3	5	5	Feuerstein Koester Morse Nelson Wuerz
Med Technologist	07	0644	GS	0	1	1	Rush Mueller
Med Technician	07	0645	GS	2	2	2	Hakes Ramirez
Research Chem	09	1320	GS	3	4	4	Noble Springs Swanson Waldrup
Bio Lab Tech	08	0404	GS	1	1	1	Jones
(animal)	09	0404	GS	1	1	1	Mercill
Ed Asst	06	0318	GS	1	1	1	McCrill
Animal Caretaker	05	7706	WG	1	3	2	Harazin Hitchcock
Clerk-Steno	05	0318	GS	1	1	1	Moran

	FY 81	FY 82	FY 83
Civilian Pay	474,832	526,991	565,020
Travel	7,629	5,350	3,901
Supplies	222,999	239,833	249,086
Equipment	153,912	201,002	200,395
Contracts	23,540	25,592	11,392
Other(Military)	417,320	470,174	439,878

Animal Resources Service

The new 7,000 square foot laboratory animal housing facility, with a capacity for 3,100 animals, was completed in early March

1983, with subsequent occupancy in early April. The facility offers species separation, 15 air changes per hour of fresh, un-recirculated air, light cycle controls in each animal room, and area humidity control. A fully automatic cage and rack washer, with automatic acid pre-rinse, acid neutralizer and detergent injectors, provides highly efficient cleaning and sanitizing of cages, racks and equipment. Eight quarantine rooms provide for examination, observation and isolation of new animals prior to introducing them into established colonies. A new steam sterilizer is programmed for installation beside the cage washer. Due to its size (2' x 3' x 5'), it will permit either the sterilization or decontamination of large loads, a capability which does not presently exist. Several new items of equipment have been procured for use in the new facility, including new caging and racks for monkeys, rabbits, rats, mice and guinea pigs. Two new metabolic cage systems were also obtained, and have seen extensive use. Two new positive- and negative-pressure laminar flow cabinets are on hand, and two portable intensive care units have been purchased for the transport of animals post-operatively and in inclement weather. The present population of the new facility includes dogs, monkeys, rabbits, opossums, guinea pigs, rats, hamsters and chicks.

A new video cassette system, complete with color camera, recorder and monitor were placed in service during the year for use in conjunction with the Zeiss operating microscope, and for a variety of teaching and training purposes.

Biochemistry Service

Minoxidil, which is broadly effective in the treatment of refractory hypertension, scleroderma, and male pattern alopecia, has been investigated with regard to its mode of action. The results indicates that minoxidil effectively shuts-down cyclooxygenase activity in both human platelets as measured by thromboxane A_2 synthesis and in human endothelial cells as measured by prostacyclin synthesis. The possible relationship of these findings to the clinical manifestations of minoxidil is under investigation. A HPLC method for separation of mono-, di-, and tri-phosphate nucleotides is in the last stage of development. The method will be used in the continued evaluation into the ontogenesis of opossum hemoglobin and will determine if nucleotides are the source of energy for the faster reduction of methemoglobin in the opossum red cell as compared to the human. A new HbA_{1c} specific assay has been initiated. This method incorporates asion-exchange column which is used to elute the unnecessary glycosylated elements (HbA_{1c} and HbA_{1b}) before the clinically significant HbA_{1c}. Final tests are being completed in the development of the gastric inhibitory protein (GIP) assay which will be used in the evaluation of reactive hypoglycemia. The

studies on the vitamin D-calcium metabolism interrelationship in the chick model has progressed to the studying of vitamin D metabolites and their effects on calcium transport and uptake by the intestinal epithelial cell membranes.

Cell Physiology Service

This newly established service was created to support research on normal and disease state human tissues using in vitro and heterotransplantation model systems. To these ends, a second laminar hood has been added to the tissue culture clean room. Two CO_2 humidified incubators were also added to grow normal dermal cell types. A second sterile room was added to the athymic nude mouse breeding and holding facility to meet protocol support requirements. The electron microscopy capabilities have also been greatly increased by the installation of a Siemens TBM.

Immunology Service

A flow cytometer (cell sorter) has been procured and procedures for performing lymphocyte phenotyping have been implemented. Development of procedures for utilizing flow cytometry for detecting antiplatelet antibodies, quantitating immune complexes, and quantitating antitetanus antibodies are also being performed to determine the capability of flow cytometric procedures for measuring neutrophil function.

Microbiology Service

During the fiscal year, the Microbiology Service participated in a total of 15 IRC-approved, clinically-oriented infectious disease protocols, which involved 12 FAMC physicians, eight DCI personnel, one nurse, three Department of Pathology employees, two WRAMC personnel, and seven persons for the civilian community.

Assistance was provided to the Microbiology Service, Department of Pathology, via evaluation of four recently-introduced, commercially-available diagnostic procedures, which could not adequately be evaluated by that service alone due to a shortage of time and personnel. Three of the four procedures were recommended for adoption. In addition, counterimmunoelectrophoretic procedures which had been evaluated by DCI were turned over to the Department of Pathology during the fiscal year.

The mycobacteriology laboratory achieved a perfect score on each of four quarterly College of American Pathologists (CAP) proficiency surveys during the fiscal year, and one employee successfully completed a two-week training program in diagnostic mycobacteriology procedures at the Centers for Disease Control (CDC) in Atlanta, Georgia.

A Siemens electron microscope was laterally transferred to DCI from WBAMC, and has been used extensively to study *in vitro* interactions between *Giardia lamblia* trophozoites and rat peritoneal leukocytes. A paper on this subject was presented by Mr. Steven Koester of the DCI Immunology Service, at the Spring 1983 Meeting of the Rocky Mountain Branch of the American Society for Microbiology.

In January 1983, LTC Engelkirk was a guest speaker at the Department of Microbiology and Immunology, University of Colorado School of Medicine; the title of his presentation was "Immunological aspects of human giardiasis". As a community service, LTC Engelkirk has lectured extensively to Denver-area medical technologists and microbiology students on the subjects of parasitology, immunoparasitology, electron microscopy, and the structure and function of eosinophils and mast cells.

Funding

The OMA costs have not been itemized by protocol number because it is not feasible or practical to do so.

MEDCASE item purchased for protocols and general laboratory use is listed as follows:

ITEM	COST
Coulter EPICS V Flow Cytometer	$195,000.00

PUBLICATIONS

PUBLICATIONS

DEPARTMENT OF MEDICINE

Allergy Service

Andrade, W.P., Renard, R.L. and Nelson, H.S.: The Effect of Troleandomycin and Methylprednisolone Alone and in Combination on Bronchial Sensitivity to Methacholine. Ann Allergy 51, 1983. (C)

Carpenter, G.B., Bunker-Sole, A.L. and Nelson, H.S.: Evaluation of Combined H1 and H2 Receptor Blocking Agents in the Treatment of Seasonal Allergic Rhinitis. J Allergy Clin Immunol 71:412, 1983. (C)

Dantzler, B.S., Martin, B.G. and Nelson, H.S.: The Effect of Positive and Negative Air Ions on Bronchial Asthma. Ann Allergy 50:362, 1983. (C)

Leavengood, D.C., Bunker-Sole, A.L. and Nelson, H.S.: The Effect of Corticosteroids on Theophylline Metabolism. Ann Allergy 50:249, 1983. (C)

Nelson, H.S.: Diagnostic procedures in Allergy I. Allergy Skin Testing. Ann Allergy 51, 1983.

Nelson, H.S.: Diagnostic Procedures in Allergy II. Bronchial Provocation Testing. Ann Allergy 51, 1983.

Nelson, H.S., Spector, S.L., Whitsett, T.L., George, R.B. and Dwek, J.H.: The Bronchodilator Response to Inhalation of Increasing Doses of Aerosolized Albuterol. J Allergy Clin Immunol 72:371, 1983. (C)

Wagner, C.J., Danziger, R.E. and Nelson, H.S.: Relation Between Positive Small Air Ions, Weather Fronts and Pulmonary Function in Patients with Asthma. Ann Allergy 51, 1983. (C)

Wagner, C.J., Taylor, R.J., and Nelson, H.S.: Lability of Blocking Antibody during Ragweed Immunotherapy. Ann Allergy 50:19, 1983. (C)

Weber, R.W., Smith, J.A. and Nelson, H.S.: Aerosolized Terbutaline in Asthmatics: Development of Subsensitivity with Long-term Administration. J Allergy Clin Immunol 70:417, 1982. (C)

(C) Direct result of approved registered protocol.

Cardiology Service:

Willis, S.M., and Bailey, S.R.: Spontaneous Subcapsular Hematoma of the Liver Complicating Intravenous Streptokinase: A Hemorrhagic Complication of Thrombolytic Therapy. (Accepted for Publication in Archives of Int Med, 1983)

Dermatology Service

Bennion, S.D.: Designing of Protective Gear to Allow for Adequate First Aid. Mil Med 147:960-962, November 1982.

Bennion, S.D., and Eubanks, S.W.: Hyperpigmentation in a Patient with Felty's Syndrome and Hemochromatosis. J Assn Mil Derm 9(1), 1983.

Bennion, S.D., and Fitzpatrick, J.E.: Pseudoatrophic Neurofibroma. J Assn Mil Derm 9:20-21, 1983.

Fitzpatrick, J.E. and Aeling, J.L.: Chancroid: Review with Emphasis on Recent Changes in Epidemiology and Treatment. J Assn Mil Derm 8:31-35, 1982.

Fitzpatrick, J.E., et al: Photosensitive Recurrent Erythema Multiforme. J Amer Acad Derm, 1983.

Fitzpatrick, J.E.: Treatment of Chancroid. J Amer Acad Derm 8:130, 1983.

Grimwood, R.E.: Complement Deposition in Patients with Herpes-Associated Erythema Multiforme. JAAD, August 1983.

Grimwood, R.E.: Dermatomyositis Associated with Oat Cell Carcinoma. J Assoc Mil Derm 8, 1982.

Grimwood, R.E.: The History and Principles of Immunofluorescence. J Assn Mil Derm 9(1), 1983.

Grimwood, R.E., Huff, J.C., Harbell, J.W. and Clark, R.A.F.: The Source of Fibronectin in Basal Cell Epithelioma. Clin Res 31(2):569A, April 1983. (C)

Grimwood, R.E., Huff, J.C. and Weston, W.L.: Complement Deposition in the Skin of Patients with Herpes-Associated Erythema Multiforme. Clin Res 31(1):65, February 1983.

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Johnson, C.A.: The Mast Cell and Mastocytosis. J Assn Mil Derm 9(1), 1983.

Mellette, J.R., Aeling, J.L. and Nuss, D.D.: Perioral Dermatitis. J Mil Derm, 1983.

Endocrinology Service

Abrahams, R. Hofeldt, F.D., Adler, R.A., O'Barr, T.P. and Morse, P.: Late Reactive Hypoglycemia in Hypothyroidism. (Accepted for Publication in the Amer J of Med Science, 1983.) (C)

Crapo, P.A., Scarlett, J.A., Kolterman, O.G., Sanders, L.R., Hofeldt, F.D., and Olefsky, J.M.: The Effects of Oral Fructose, Sucrose, and Glucose in Subjects with Reactive Hypoglycemia. Diabetes Care 5:512, 1982. (C)

Eckels, R.H. and Hofeldt, F.D.: Chapter 13, Endocrinologist and Metabolism in the Elderly, In Clin Int Med in the Aged, Robert W. Schrier, ed., W.B. Saunders Co., 1982.

Fitzpatrick, J.E., McDermott, M., May, D. and Hofeldt, F.D.: Eruptive Neurofibromatosis Associated with Anorexia Nervosa. Archives of Derm, 1983 (In Press).

Georgitis, W.J., Treece, G.L., and Hofeldt, F.D.: Gonadotropin Releasing Hormone Provokes Prolactin Release in Hypergonadotropic Hypogonadal Women: A Response Not Altered by Dexamethasone. Clin Endo 19:319, 1983. (C)

Greathouse, D.J., McDermott, M.T., Kidd, G.S., and Hofeldt, F.D.: Pure, Primary Hyperaldosteronism Due to an Adrenal Cortical Carcinoma. Amer J of Med, 1983 (In Press).

Hofeldt, F.D.: Reactive Hypoglycemia: Comments. (Submitted for Publication to Patient Care, July 1983.)

Hofeldt, F.D. and Kelly, M.: Low-dose Insulin Regimens in the Management of Diabetic Ketoacidosis. Minn Med 66:25, January 1983.

Hofeldt, F.D., Kidd, G.S., Bornemann, M., McDermott, M.T., Treece, G.L., Clark, J., Sims, J., and Ghaed, N.: Practical Application of Fine Needle Thyroid Aspiration Biopsy in Clinical Medicine. (Submitted for Publication to Mil Med, August 1983.)

(C) Direct result of approved registered protocol.

McDermott, M.T.: Health Care Among the Sinai Bedouin. (Submitted for Publication to New England J of Med, June 1983.)

McDermott, M.T., Kidd, G.S., Blue, P., Ghaed, V., and Hofeldt, F.D.: Reduced Bone Mineral Content in Totally Thyroidectomized Patients: Possible Effect of Calcitonin Deficiency. J of Clin Endo and Meta 56:936, 1983.(C)

McDermott, M.T., Kidd, G.S., Dodson, L.E., and Hofeldt, F.D.: Radioiodine Inducted Thyroid Storm. Amer J of Med 75:353, 1983.

McDermott, M.T. Kidd, G.S., Dodson, L.E., and Hofeldt, F.D.: Hyperthyroidism Following Hypothyroidism: Report of Two Cases and Review of the Literature. (Submitted for Publication to Amer J of Med Science, 1983.)

Sanders, L.R., Hofeldt, F.D., Kirk, M.C., and Levin, J.: Refined Carbohydrate as a Contributing Factor in Reactive Hypoglycemia. S Med J 75:1072, 1982.(C)

Sjoberg, R.J., McMilan, V.M., Bartram, L.S. and Copley, J.B.: Renal Failure with Minimal Change Nephrotic Syndrome: Reversal with Hemodialysis. Clin Nephro 20:98, 1983.

Treece, G.L., Georgitis, W.J., and Hofeldt, F.D.: Resolution of Recurrent Thyroid Cysts with Tetracycline Instillation. (Accepted for Publication in Archives of Int Med, 1983).

Treece, G.L., Dodson, L.E. and Hofeldt, F.D.: Necrobiosis Lipoidica Diabeticorum: The Influence of Improved Blood Glucose Control. (Submitted for Publication to J of Amer Acad of Derm, August 1983.)

Gastroenterology Service

Dunn, M.A. and Brewer, T.G.: Non Viral Liver Infections. Chapter in The Liver Annual, March 1983 (IM Arias, M. Frenkel and J.M.P. Wilson, Eds.) Elsevier-North Holland, New York, pp 206-230, 1983.

Hematology-Oncology Service

Artim, R.A., DiBella, N.J.: Tetrahydrocannabinol Plus Prochlorperazine for Refractory Nausea and Vomiting. Proc's of Amer Soc of Clin Oncol, C330, 1983 (Abst). (C)

(C) Direct result of approved registered protocol.

Artim, R.A., DiBella, N.J. and Bourg, W.C., III: Relief of Antineoplastic Therapy-Induced Stomatitis Pain with Low Concentration Topical Cocaine. Proc's of Amer Soc of Clin Oncol, C361, 1983. (C)

Harbell, J.W., DiBella, N.J., Jones, L.E., Kramer, L.C. and Mercill, D.B.: Assessment of Synergism Between Hyperthermia and Chemotherapy Against Human Melanoma Cell Lines in Vitro. Proc's of Amer Assoc for Cancer Res, C1226, 1983 (Abst). (C)

Pearlman, N.M., Meyers, A.D., Johnson, F.B. and DiBella, N.J.: Preoperative Chemo-Radiotherapy in Advanced Head and Neck Cancer. Head and Neck Surg 5:10-14, 1982.

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Nephrology Service

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PRESENTATIONS

PRESENTATIONS

DEPARTMENT OF MEDICINE

Allergy Service

Brown, J.: The Potency of Various Corticosteroids--Inhibition of Lymphocyte Mitogenesis in Humans. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, CO, January 1983. (C)

Hoffman, M.: Initiation of Ragweed Immunotherapy Prior to or Following the Pollen Season. Presented: 39th Annual Congress, American College of Allergists, New Orleans, LA, 29 January 1983. (C)

Kray, K.: Cromolyn Sodium in Seasonal Allergic Conjunctivitis. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, CO, January 1983. (C)

McBride, D.: Relationship of Changes in Titrated Prick Test to Levels of Blocking Antibody. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, CO, January 1983. (C)

Moyer, D.: House Dust Mites in Colorado. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, CO, January 1983.

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Nelson, H.: Combination of Oral Theophylline and Aerosolized Beta-2 Agonists. Presented: Second International Workshop on Sustained Release Theophylline, Mont Ste Marie, Canada, 2 September 1983.

Nelson, H.: Evaluation of Chronic Urticaria. Presented: First Annual Aspen Allergy Conference, Aspen, Colorado, July 1983.

Nelson, H.: Gastroesophageal Reflux in Lung Disease. Presented: 6th Annual Buffalo Symposium on Pediatric and Adult Allergy, Toronto, Canada, July 1983.

Nelson, H.: Immunotherapy of Rhinitis/Asthma: Old and New Preparations. Presented: 6th Annual Buffalo Symposium on Pediatric and Adult Allergy, Toronto, Canada, July 1983.

(C) Direct result of approved registered protocol.

Nelson, H.: The Use of Cromoly in Ocular Diseases: Vernal Keratoconjunctivitis. Presented: Cromolyn in Allergy Symposium, Snowmass Village, Colorado, June 1983. (C)

Renard, R.: The Effect of Methylprednisolone and Troleandomycin Alone and in Combination on Bronchial Sensitivity to Methacholine. Presented: 39th Annual Congress, American College of Allergists, New Orleans, LA, January 1983. (C)

Squire, E.: Adverse Reactions to Foods--Scientific Merit of Published Methods of Diagnosis. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, CO, January 1983.(C)

Squire, E.: Relationship of Changes in Titrated Prick Tests to Levels of Blocking Antibody. Presented: 39th Annual Congress, American College of Allergists, New Orleans, LA, January 1983. (C)

Squire, E.: Nebulized Medication via Face Mask--Considerations in Rational Prescribing. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, Colorado, January 1983. (C)

Squire, E.: The Use of Absorbed and Nonabsorbed RAST for Assessment of IgE Mediated Sensitivity During Immunotherapy. Presented: First Annual Aspen Allergy Conference, Aspen, Colorado, July 1983. (C)

Taylor, R.: The Development of Subsensitivity to Antihistamines. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, Aurora, Colorado, January 1983. (C)

Weber, R.: Chenopod-Amaranth Cross Allergenicity: Evaluation by RAST Inhibition. Presented: 1st Annual Aspen Allergy Conference, Aspen, Colorado, July 1983.

Weber, R.: Cross Reactivity Among Tree Pollen: Skin Test Correlations. Post Presentation: 39th Annual Congress, American College of Allergists, New Orleans, LA, January 1983.

Cardiology Service

Bailey, S.R.: Evaluation and Interpretation of Left Ventricular Hemodynamics. Presented: Colorado Society of Nurse Anesthetists, Denver, CO, May 1983.

Bailey, S.R.: Normal Coronary Arteries: Clinical and Hemodynamic Correlates. Presented: Assoc of Army Cardiology Meeting, D.D. Eisenhower AMC, Ft. Gordon, GA, May 1983.

(C) Direct result of approved registered protocol.

Thomas, H.M., Jr.: Computer Assisted Cardiovascular Screening in Army Personnel Over the Age of 40. Presented: Regional Meeting of American College of Physicians, Honolulu, Hawaii, January 1983.

Thomas, H.M., Jr.: Computers in Cardiology. Presented: Regional Meeting of American College of Physicians, Honolulu, Hawaii, January 1983.

Thomas, H.M., Jr.: Coronary Risk Factors in an Infantry Brigade. Presented: Association of Army Cardiology Meeting, D.D. Eisenhower Army Medical Center, Ft. Gordon, GA, May 1983.

Thomas, H.M., Jr.: Is There a Computer in Your Life? Presented: Regional Meeting of American College of Physicians, Honolulu, Hawaii, January 1983.

Thomas, H.M., Jr.: Tripler Army Medical Center Experience with over 40 Screening Program. Presented: Association of Army Cardiology Meeting, D. D. Eisenhower Army Medical Center, Ft. Gordon, GA, May 1983.

Dermatology Service

Bennion, S.D.: Basic Dermatology for the Non-Dermatologist. Presented: Physicians at Pine Ridge Indian Reservation Hospital, Pine Ridge, S.D., September 1983.

Bennion, S.D.: Case Report and Discussion of a Possible Case of AIDS. Presented: Eighth Annual Meeting of the American Dermatologic Society for Allergy and Immunology, Colorado Springs, CO, 23 September 1983.

Bennion, S.D.: Nuclear Biological and Chemical Warfare. Presented: 396th Station Hospital, Helena, Montana, May 1983.

Fitzpatrick, J.E.: A New Treatment of Scleroderma? Presented: Eighth Annual Armed Forces Dermatology Seminar, Colorado Springs, CO, May 1983. (C)

Fitzpatrick, J.E.: Minor Veneral Diseases Revisited. Presented: The Colorado Dermatology Society, Denver, CO, May 1983.

Grimwood, R.E.: Herpes Gestationis. Presented: Internal Medicine Review, University of Colorado, Denver, CO, March 1983.

(C) Direct result of approved registered protocol.

Grimwood, R.E.: Recognition and Treatment of Skin Cancer. Presented: Family Practice Review, University of Colorado, Denver, CO, June 1983.

Endocrinology Service

Hofeldt, F.D.: Program Chairman and Moderator. Presented: Twentieth Annual Colorado Diabetes Institute Short Course, Vail, CO, 2-6 March 1983.

Wray, H.L., Mehlman, I., Kidd, G.S., and Cheatham, W.W.: Effect of Dietary Phosphorus Deprivation on Plasma $1,25(OH)_2$ Vitamin D in Hypoparathyroid Patients. Presented: American Society for Bone and Mineral Research, San Antonio, TX, June 1983.

Hematology-Oncology Service

DiBella, N.J.: Chemotherapy and the Management of Adult Soft Tissue Sarcomas. Presented: Seventeenth Annual Vail Midwinter Cancer Seminar, Vail, CO, 14 January 1983.

DiBella, N.J.: Technology and Human Values. Presented: Eleventh Annual Conference on Human Values , sponsored by the Colorado Division of the American Cancer Society, Denver, CO, 27 October 1982.

Hess, J.R.: Physiologic Correlates of Vascular Injury in Sickle Cell Trait. Presented: Brooke Army Medical Center, San Antonio, TX, 1 February 1983.

Oswald, S.G.: Osteogenic Sarcoma Metastatic to Heart. Presented: Third Annual Army Current Concepts in Hematology-Oncology. Presented: Brooke Army Medical Center, San Antonio, TX, 1 February 1983.

Zaloznik, A.J.: Second Malingancies in Breast Cancer. Presented: Third Annual Army Current Concepts in Hematology-Oncology. Presented: Brooke Army Medical Center, San Antonio, TX, 1 February 1983.

Pulmonary Disease Service

Gilbert, J.: Intra-Cranial Pressure Monitering: High Frequency Jet Ventilation versus Positive Pressure Ventilation. Presented: 35th Annual Carl W. Tempel Pulmonary Symposium, FAMC, Aurora, CO, January 1983. (C)

(C) Direct result of approved registered protocol.

Perry, M.: Models of High Frequency Oscillation Ventilation. Presented: 35th Annual Carl W. Tempel Pulmonary Symposium, FAMC, Aurora, CO, January 1983. (C)

Pluss, J.: Interstitial Pulmonary Fibrosis with High Titer RNP Positivity: A New Clinical Entity. Presented: 35th Annual Carl W. Tempel Pulmonary Symposium, FAMC, Aurora, CO, January 1983.

Ripple, G.R.: Flow Variation by Injector Diameter and Length During High Frequency Jet Ventilation. Presented: 35th Annual Carl W. Tempel Pulmonary Symposium, FAMC, Aurora, CO, January 1983. (C)

Schlacter, M.: Airway Pressures in High Frequency Jet Ventilation. Presented: 35th Annual Carl W. Tempel Pulmonary Symposium, FAMC, Aurora, CO, January 1983. (C)

DEPARTMENT OF CLINICAL INVESTIGATION

DiBella, N.J., and Harbell, J.W.: Interaction of Chemotherapy (CT) and Hyperthermia (HT). Presented: The Tri-Services Medical Oncology Meeting, San Antonio, TX, 1983. (C)

Engelkirk, P.G.: Giardia Research at Fitzsimons Army Medical Center - an Overview. Presented: Rocky Mountain Branch of the American Society for Microbiology, Fort Collins, CO, October 1982. (C)

Grimwood, R.E., Huff, J.C., Harbell, J.W., and Clark, R.A.F.: The Source of Fibronectin in Basal Cell Epithelioma. Presented: Proceedings of the Society for Investigative Dermatology, Washington, DC, April 1983. (C)

Harbell, J.W., DiBella, N.J., Jones, L.E., Kramer, L.C., and Mercill, D.B.: Assessment of Synergism Between Hyperthermia (HT) and Chemotherapy (CT) Against Human Melanoma Cell Lines. Presented: American Association for Cancer Research, San Diego, CA, May 1983. (C)

Harbell, J.W., Mercill, D.B., and Woods, L.K.: Use of Athymic Nude Mice to Establish Human Tumor Cell Lines. Presented: National Tissue Culture Association Annual Meeting, Orlando, FL, June 1983. (C)

Koester, S.K., Engelkirk, P.G., Paine, D.D., Wuerz, D.J., and Rothlauf, M.V.: In Vitro Interactions Between Giardia lamblia Trophozoites and Rat Peritoneal Cells. Presented: Rocky Mountain Branch of the American Society for Microbiology, Denver, CO, May 1983. (C)

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Zolock, D.T., and Chadwick, E.W.: Comparison Study on the Effects of Vitamin D_3 Metabolism on Calcium Metabolism Provides Further Insight into Vitamin D Mechanisms of Action in the Intestine and Bone. Presented: Federation of American Societies for Experimental Biology, Chicago, IL, April 1983. (C)

DEPARTMENT OF NURSING

Corcoran, D.K.: The Nurses Role in Supporting Patients Who Have Experienced Out-of-Body Experiences. Presented: Colorado Nurses Association, Vail, CO, August 1983.

Corcoran, D.K.: Toward a Measurement of Decision Making. Presented: American Association of Decisions Sciences, Houston, TX, May 1983.

Renaud, M.T.: The Results of Discontinuing Cover Gowns on a Postpartal Ward Upon Bacterial Cord Colonization of the Neonate. Presented: Armed Forces District ACOG NAACOG, Portland, OR, October 1982. (C)

DEPARTMENT OF OB-GYN

Brady, W.K., Hill, J.M., and Sarno, A.P.: Sporadic Puerperal Mastitis - Review and Update. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Brady, W.K., and Purdon, A.: Intrauterine Fetal Demise Associated with Enterovirus Infection Five Days Post Reactive NST. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Brown, M.S., and Galland, T.J.: Uterine Hemangioma as a Cause of Intractable Uterine Bleeding. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Cothran, G.E., Shirts, S.R., and Hill, J.M.: Transfer of Premature Labor Patients. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Green, D.E., and Hill, J.M.: Pregnancy and Neurofibromatosis: A Case Report. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

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Jones, R.O., and Bobitt, J.R.: Prevention of Post Cesarean Section Endometritis by Irrigation with Cefamandole Nafate Solution. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Jones, R.O., and Galland, T.J.: Case Report - Pregnancy Compicated by Fetal Demise and HELLP Syndrome at 17 Weeks' Gestation. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Pennington, T.B., and Jones, R.O.: Case Report.: Pregnancy Complicated by Ventriculoperitoneal Shunt. Presented: OB-GYN Armed Forces Seminar, Portland, OR, October 1982.

Phillips, G.L.: Adenocarcinoma of the Endometrium. Presented: Memorial Hospital Continuing Education, Colorado Springs, CO, July 1983.

Phillips, G.L.: DES - An Oncologist's Viewpoint. Presented: Making Advances, Update in OB-GYN, Denver, CO, March 1983.

Phillips, G.L.: Gestational Trophoblastic Neoplasia. Presented: Memorial Hospital Continuing Medical Education, Colorado Springs, CO, October 1982.

Phillips, G.L.: Sexual Dysfunction in the Gynecologic-Oncology Patient. Presented: ACS Forum, FAMC, Aurora, CO, 23 April 1983.

DEPARTMENT OF PATHOLOGY

Stocker, J.T., McGill, L.C. and Orsini, E.N.: Peripheral Lung Cysts in Pediatric Patients: Three Cases Possibly Caused by Pulmonary Thrombi and Infarction. Presented: Pediatric Pathology Club, Vancouver, BC, October 1982.

DEPARTMENT OF PEDIATRICS

Merenstein, G.B.: Neonatal Intensive Care and Neurologic Outcome. Presented: Visiting Professor Lecture, Tripler Army Medical Center, Honolulu, Hawaii, September 1983.

Merenstein, G.B.: Neonatal/Maternal Transport. Presented: Visiting Professor Lecture, Tripler Army Medical Center, Honolulu, Hawaii, September 1983.

(C) Direct result of approved registered protocol.

Merenstein, G.B.: Nonstructural Cardiac Disease in RDS. Presented: Visiting Professor Lecture, University of Mississippi, Jackson, MI, February 1983.

Merenstein, G.B.: The Baby Doe Rule - A Lesson in Bioethics. Presented: Visiting Professor Lecture, Tripler Army Medical Center, Honolulu, HI, September 1983.

Merenstein, G.B., Pierce, Jr., F.G., and Kilbridge, H.: A Method for Following Intranursery and Internursery Mortality Trends. Presented: AAP Annual Meeting, New York, NY, November 1982.

Moffitt, D.R., Bryant, M.V., and Merenstein, G.B.: The Use of Fiberoptic Bronchoscopy in Children and Adolescents. Presented: Poster Session, American Academy of Pediatrics Military Section, Fall Meeting, New York, NY, October 1982.

Mosijczuk, A.D.: Incidence of Latent Iron Deficiency in a Healthy School Ages Population. Presented: University of Colorado Pediatric Hematology-Oncology Meeting, Aspen, CO, 4 April 1983. (C)

Mosijczuk, A.D.: Proposal for using AZQ in the Treatment of Children with Brainstem Glioma. Presented: POG Brain Tumor Core Committee Meeting, Atlanta, GA, 29 August 1983.

Murphy, G.: A Computer Model for the Prediction of Neonatal Drug Dosage. Presented: Perinatal Research Conference, Aspen, CO, July 1983.

Sanders, J.M.: Adolescent Amenorrhea, Primary and Secondary. Presented: Plenary Session of the 18th Annual Uniformed Services Pediatric Seminar, San Francisco, CA, March 1983.

Sanders, J.M.: Adolescent Amenorrhea. Presented: North American Medical/Dental Association, Snowmass, CO, February 1983.

Sanders, J.M.: Adolescent Substance Abuse. Presented: 14th Annual Institute of the National Association of Community Health Centers, Arlington, VA, September 1983.

Sanders, J.M.: Prevention and/or Delay of a Subsequent Pregnancy. Presented: 15th Ross Roundtable, The Adolescent Family, Boston, MA, September 1983.

(C) Direct result of approved registered protocol.

Sanders, J.M.: Substance Abuse and Youth. Presented: American Academy of Pediatrics Symposium, New York City, NY, October 1982.

Sanders, J.M.: Substance Abuse. Presented: Second Annual Conference Sponsored by the Rocky Mountain Chapter of the Society for Adolescent Medicine, Denver, CO, May 1983.

Sanders, J.M.: Why Do You Think They Call It High School? Presented: 30th Annual Family Practice Review Conference, Estes Park, CO, 1 June 1983.

Slover, R.: The Use of Clonidine in the Evaluation of Growth Hormone Deficiency. Presented: Uniformed Services Pediatric Seminar, San Francisco, CA, 1983.

DEPARTMENT OF PSYCHIATRY

Kolb, M.: The Military Adolescent versus the Civilian Dependent Adolescent - A Comparison. Presented: Association of Military Osteopathic Physicians and Surgeons, San Diego, CA, March 1983.

Smith, R.F.: Application of Group Dynamics to Preventive Dentistry. Presented: AMEDD Psychology Symposium, Augusta, GA, November 1982.

DEPARTMENT OF SURGERY

Ophthalmology Service

Freeley, D.A.: Recurrent Esotropia. Presented: American Association of Pediatric Ophthalmology and Strabismus, Monterey, CA, October 1982.

Freeley, D.A.: Occult Superior Oblique Syndrome. Presented: Resident's Day, University of Colorado School of Medicine, Denver, CO, May 1983.

Mein, C.A.: Techniques of Laser Photocoagulation for Diabetic Retinopathy. Presented: Resident's Day, University of Colorado School of Medicine, Denver, CO, May 1983.

Orthopedic Service

Coville, F.V.: Neufeld Traction Technique. Presented: Symposium on Spinal Upper and Lower Extremity Orthotics, FAMC, Aurora, CO, May 1983.

(C) Direct result of approved registered protocol.

Covill, F.V.: Office Management of Arthritis. Presented: Ninth Annual Primary Care Orthopedics Symposium, Aspen, CO, August 1983.

Curl, W.W.: Arthroscopic Follow-up of Anterior Cruciate Ligament Augmentations. Presented: Society of Military Orthopedic Surgeons, El Paso, TX, November 1982.

Curl, W.W.: Arthroscopy for Diagnosis and Treatment in the Child and Adolescent. Presented: Symposium of Children's Orthopedics, FAMC, Aurora, CO, February 1983.

Curl, W.W.: Physiologic Aspects of Fitness. Presented: Sports Medicine Symposium, Rutgers University, New Jersey, March 1983.

Curl, W.W.: Assessment of Acute Knee Injuries. Presented: Sports Medicine Symposium, Rutgers University, New Jersey, March 1983.

Curl, W.W.: Chondral Defects, Cause for Confusion. Presented: Society of Military Orthopedic Surgeons, El Paso, TX, November 1982.

Curl, W.W.: Physiologic Aspects of Fitness. Presented: Health Seminar, FAMC, Aurora, CO, September 1983.

Curl, W.W.: Surgical Management of Tennis Elbow. Presented: Sports Medicine Symposium, Rutgers University, New Jersy, March 1983.

Eversmann, Jr., W.W.: Infection of the Hand. Presented: Symposium of Children's Orthopedics, FAMC, Aurora, CO, February 1983.

Eversmann, Jr., W.W.: Upper Extremity Burn Orthoses. Presented: Symposium on Spinal Upper and Lower Extremity Orthotics, FAMC, Aurora, CO, May 1983.

Frushour, S.J.: Anatomy of Scoliosis. Presented: Symposium on Spinal Upper and Lower Extremity Orthotics, FAMC, Aurora, CO, May 1983.

Frushour, S.J.: Philosophy of Back Bracing. Presented: Symposium on Spinal Upper and Lower Extremity Orthotics, FAMC, Aurora, CO, May 1983.

(C) Direct result of approved registered protocol.

Frushour, S.J.: Pyogenic and Granulomatous Spondylitis. Presented: Primary Care of the Back, 9th Annual Primary Care Orthopedic Symposium, Aspen, CO, August 1983.

Frushour, S.J.: Somatosensory Evoked Potentials in Lumbar Radiculopathy. Presented: Spinal Surgery: Back to the Basics (A Combined Neurosurgery and Orthopedic Surgery Advanced Course) University of Miami School of Medicine, Orlando, FL, February 1983.

Frushour, S.J.: Spinal Cord Monitor in Spine Surgery. Presented: Symposium of Children's Orthopedics, FAMC, Aurora, CO, February 1983.

Frushour, S.J.: Spinal Stenosis. Presented: Primary Care of the Back. Ninth Annual Primary Care Orthopedics Symposium, Aspen, CO, August 1983.

Loth, T.S., and Eversmann, Jr., W.W.: Evaluation of Treatment Methods for Chemotherapeutic Agent Extravasations: A Comparative Study. Presented: Third Annual Current Concepts in Hematology/Oncology, San Antonio, TX, February 1983. (C)

Loth, T.S., and Eversmann, Jr., W.W.: Evaluation of Treatment Methods for Chemotherapeutic Agent Extravasations: A Comparative Study. Presented: Joseph E. Baugh Residents' Paper Competition, Washington, DC, April 1983. (C)

Loth, T.S., and Eversmann, Jr., W.W.: Evaluation of Treatment Methods for Chemotherapeutic Agent Extravasations: A Comparative Study. Presented: Hugh Mahon Lectureship Award, FAMC, Aurora, CO, June 1983. (C)

Ozaki, J.K.: Children's Elbow Fractures. Presented: Symposium of Children's Orthopedics, FAMC, Aurora, CO, February 1983.

Ozaki, J.K.: Spondylolisthesis in Children. Symposium of Children's Orthopedics, FAMC, Aurora, CO, February 1983.

Otolaryngology Service

Lowry-Romero, M.F.: Protocol for Delivery of Services to the Laryngectomized Population and their Families. Presented: Seminar in Laryngectomee Rehabilitation, FAMC, Aurora, CO, April 1983.

(C) Direct result of approved registered protocol.

Plastic Surgery

Muench, A.G.: Carcinoma in Augmented Breasts. Presented: Annual Meeting of Plastic and Reconstructive Surgeons, Sun Valley, Idaho, Feburary 1983.

Urology Service

Donohue, R.E., Fauver, H.E., Augspurger, R.R. and Buck, E.G.: Paratesticular Tumors. Presented: (Poster) Annual Meeting of the AUA, Las Vegas, NV, April 1983.

Donohue, R.E., Fauver, H.E., and Buck, E.G.: Benign Testicular Masses. Presented: (Poster) Annual Meeting of the AUA, Las Vegas, NV, April 1983.

Fauver, H.E.: Complications of Dermal Graft in Peyronie's Disease. Presented: 30th Annual Kimbrough Urological Seminar, New Orleans, LA, November 1982.

Fauver, H.E., and Donohue, R.E.: The Challenging Scrotal Exam - 1982. Presented: Annual Meeting of the AUA, Las Vegas, NV, April 1983.

Mani, J.H.: Complications of External Beam Irradiation Therapy. Presented: 30th Annual Kimbrough Urological Seminar, New Orleans, LA, November 1982.

Norris, M.: Genito-Urinary Malignancy in Children. Presented: 30th Annual Kimbrough Urological Seminar, New Orleans, LA, November 1982.

(C) Direct result of approved registered protocol.

EXPLANATION of ANNUAL PROGRESS REPORT DETAIL SHEETS

(1) DATE: Fiscal Year ending date.

(2) PROTOCOL NO: FAMC Work Unit Number of the study.

(3) STATUS: Indicates if the study is Ongoing, Completed or Terminated.

(4) TITLE: Project title of the study.

(5) START DATE: The date the study started.

(6) ESTIMATED COMPLETION DATE: The projected completion date of the study.

(7) PRINCIPAL INVESTIGATOR(s): List of all Principal Investigator(s) involved in the study.

(8) FACILITY: Fitzsimons Army Medical Center

(9) DEPARTMENT/SECTION: Department or Service the protocol originated from.

(10) ASSOCIATE INVESTIGATOR(9): List of all Associate Investigator(s) involved in the study.

(11) KEY WORDS: Key words pertaining to the particular area of research involved in the study.

(12) ACCUMULATIVE MEDCASE COST: See Unit Summary Sheet - Funding.

(13) ESTIMATED ACCUMULATIVE OMA COST: See Unit Summary Sheet - Funding

(14) PERIODIC REVIEW RESULTS: Date of the continuing review by the Institution Review Committee.

(15) STUDY OBJECTIVE: A summary of objectives to be accomplished during the study.

(16) TECHNICAL APPROACH: A brief summary of the technical approach to be taken during the study.

(17) PROGRESS: A summary of prior and current progress since inception of of the study.

The Continuation Sheets are used as extensions for (1) - (17) and as an accumulative listing for Publications and Presentations that are a direct result from the study.

The Detail Sheets were submitted in final form by the Principal Investigators and have not been edited.

DETAIL SUMMARY SHEETS

MEDICINE

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 74/110 (3) Status: Ongoing

(4) Title:
Reactive Hypoglycemia: An Analysis of Glucose-Insulin-Glucagon Interrelationships and Counter Hormonal Regulatory Factors

(5) Start Date: FY 71	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Fred D. Hofeldt, MD, COL, MC Michael Bornemann, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Endocrine	(10) Assoc Investigators: Gerald S. Kidd, MD, LTC, MC T. P. O'Barr, Ph.D., DAC Annelie Shackelford, MT, DAC
(11) Key Words: reactive hypoglycemia glucose tolerance counter-regulatory hormones	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 11/82 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 21
d. Total Number of Subjects Enrolled to Date: 366
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

The objectives of the hypoglycemic study is to continue to investigate in our large clinic population the glucose-insulin-glucagon and prolactin interrelationships and the response of counter-regulatory hormones to hypoglycemic stress. This project is a continuation of the previous project initiated in 1969 at the University of California Medical Center, Moffatt Hospital, San Francisco, CA.

(16) Technical Approach:

The clinical research protocol involves evaluation of control subjects and hypoglycemic patients to assess the interrelationships of beta cell and alpha cell responsiveness to oral and intravenous glucose administration. Based upon findings in controls and patients with disease states, a classification system has been proposed. The data have allowed for an understanding of the basic pathophysiology of reactive hypoglycemia disorders. The clinical studies are being conducted in the Department of Medicine, Endocrine Clinic, with the assistance of an assigned GS-5 Medical Technician to perform blood sampling and to assist during the testing. During the glucose tolerance test, the patient has an indwelling catheter for frequent sampling of blood glucose, and is continually monitored by a cardiac monitor system and blood sampling. After glucose administration, blood insulins, glucagons, growth hormones,

(16) Continued

prolactins and cortisols are sampled and values are determined by a sensitive radioimmunoassay. Blood glucoses are assessed by the Ames Reflectance Meter immediately after sampling. The procedure is designed to provide a minimum of patient inconvenience in the performance of these well standardized procedures. Many normal individuals experience a low blood sugar state sometime after glucose administration, the significance of a low blood glucose state is observed by recording appropriate adrenergic symptoms at the nadir of the glucose and determining if there is a counter hormonal responsiveness to defend the stress of a low blood glucose state. This approach allows strict definition of bona fide reactive hypoglycemia, and clearly distinguishes it from the benign low blood glucose states.

(17) Progress:

The study continues to be an active endocrine protocol with recruitment of new patients for evaluation and study. Several publications elucidating the unusual features of this disorder have resulted from the study. The patients studied in this program are currently being evaluated by a data management system developed by the Department of Automation using a Cyber Computer for data retrieval and use of BMD PSS for statistical analysis. The Department of Clinical Investigation staff is currently in the process of developing a gastric inhibitory polypeptide assay to determine if alterations in this gastrointestinal factor may be implicated in reactive hypoglycemia.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 74/110

SERVICE Endocrine DEPARTMENT Medicine

(1) Abrams, R., Hofeldt, F.D., Adler, R., O'Barr, T.P., and Morse, P.: Late Reactive Hypoglycemia in Hypothyroidism. (Accepted for publication in American Journal of the Medical Sciences.)

(2) Hofeldt, F.D.: Transitional Low Blood Glucose States. Rocky Mountain Medical Journal 76:30, 1979.

(3) McCowen, K.D., Adler, R.A., O'Barr, T.P., and Hofeldt, F.D.: Clinical Implications of Flat Oral Glucose Tolerance Test. Military Medicine 144:177, 1979.

(4) Charles, M.A., Hofeldt, F.D., Dodson, L.E., Shackelford, A., Waldeck, N., Bunker, D., Coggins, J.T., and Eichner, H.: Comparison of Glucose Tolerance Tests and Mixed Meals in Patients with Idiopathic Reactive Hypoglycemia: Absence of Hypoglycemia After Mixed Meals. Diabetes 30:465, 1981.

(5) Sanders, L.R., Hofeldt, F.D., Kirk, M., and Levin, J.: Refined Carbohydrate as a Contributing Factor in Reactive Hypoglycemia. Southern Medical Journal 75:1072, 1982.

(6) Crapo, P.A., Scarlett, J.A., Kolterman, O., Sanders, L., Hofeldt, F.D., and Olefsky, J.: The Effects of Oral Fructose, Sucrose and Glucose in Subjects With Reactive Hypoglycemia. Diabetes Care 5:512, 1982.

(7) Sanders, L.R., Hofeldt, F.D., Kirk, M.C., and Levin, J.: Refined Carbohydrate as a Contributing Factor in Reactive Hypoglycemia. Southern Medical Journal 75:1072-1075, 1982.

PRESENTATIONS for FY 83 Annual Progress Report Proto No. 74/110

SERVICE Endocrine DEPARTMENT Medicine

(1) Hofeldt, F.D.: Reactive Hypoglycemia: Update 1980. Presented: Endocrine Grand Rounds, University of Colorado Health Sciences Center, Denver, CO, 16 January 1980.

(2) Sanders, L.R.: Reactive Hypoglycemia. Presented: Grand Rounds, University of Colorado Health Sciences Center, Denver, CO, 13 March 1979.

(3) Sanders, L.R.: Reactive Hypoglycemia. Presented: Medical Grand Rounds, Denver General Hospital, Denver, CO, 15 March 1979.

(4) Sanders, L.R.: Reactive Hypoglycemia. Presented: Endocrine Grand Rounds, University of Colorado Health Sciences Center, Denver, CO, 11 April 1979.

(5) Hofeldt, F.D.: Hypoglycemia. Grand Rounds, Delgado Amphitheater, Tulane Medical School Charity Hospital, New Orleans, LA, 28 April 1982.

(6) Hofeldt, F.D. and Scarlett, J.A.: Reactive Hypoglycemia. Presented: Endocrine Grand Rounds, University of Colorado Health Sciences Center, Denver, CO, March 1982.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 76/102 (3) Status: Closed

(4) Title:
Anti-Neoplastic Therapy with Methyl CCNU (NSC95441)/1-(2-Chloroethyl)-3-(4-Methyl Cyclohexyl) - 1-Nitrosourea

(5) Start Date: 1976	(6) Est Compl Date: 1983
(7) Principal Investigator: N.J. DiBella, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: HEM/ONC	(10) Assoc Investigators:
(11) Key Words: Chemotherapy, CA of colon	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct/82 b. Review Results: To continue
c. Number of Subjects Enrolled During Reporting Period: None
d. Total Number of Subjects Enrolled to Date: See previous report
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

None

(15) Study Objective:
To test the efficacy of methyl CCNU in metastatic or recurrent CA of the colon.

(16) Technical Approach:
Clinical Study

(17) Progress:
Study closed at request of National Cancer Institute due to lack of proven efficacy compared with 5-fluorouracil as a single agent.

Publications and Presentations: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#:78/102 (3) Status: continued

(4) Title: The development of specific and cross sensitivity in the tracheal tissue of guinea pigs treated with isoproterenol and aminophylline

(5) Start Date: 1978	(6) Est Compl Date: 1984
(7) Principal Investigator: W.R. Tipton, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: William Long, MAJ, MC Terry Miller, CPT, MC
(11) Key Words: subsensitivity beta agonists guinea pig tracheas	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: continue

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

NA

(15) Study Objective:

This study is designed to measure the development of the subsensitivity to two drugs, isoproterenol and theophylline, by examining both their dilating response on histamine contracted tracheal tissue and ability to increase levels of cyclic-AMP in tracheal tissue and parenchymal lung tissue.

16) Technical approach: Guinea pig tracheal and peripheral ung strips will be analyzed for cyclic nucleotide levels, metabolites of arachodonic acid and physiologic response to various medicators employing a continuous flow tissue bath system. The equipment for this study is presently available at Fitzsimons Army Medical Center.

17) Progress: Analysis of the data, looking at aminophylline induced tracheal relaxation during a time of cyclic-AMP subsensitivity is currently being accomplished. Also currently new fellows are being introduced to this method of tissue study and the last part of this protocol including prostaglandin study in conjunction with subsensitivity hopefully will be accomplished in the near future.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 78/102

1. Tipton, W.R., Nelson, H.S., Souhrada, J.F., Morris, H.G., Jacobson, K.W.: Dynamics of isoproterenol subsensitivity in guinea pig airway smooth muscle. Lung 159:199, 1981.

PRESENTATIONS:

1. Tipton, W.R., Jacobson, R., Nelson, H.S., Morris, H., Souhrada, J.: Dynamics and mechanism of guinea pig trachea subsensitivity to isoproterenol. Presented: 31st Annual Pulmonary Disease Symposium, Fitzsimons Army Medical Center, Aurora, CO, Sep 78.

2. Tipton, W.R., Jacobson, K., Nelson, H.S., Morris, H., Souhrada, J.: Dynamics and mechanism of guinea pig trachea subsensitivity to isoproterenol. Presented: American Thoracic Society, Las Vegas, NV, May 79.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/114 (3) Status: ONGOING

(4) Title: In vitro effect of minoxidil on collagen production by normal and scleroderma fibroblasts. (Previously titled "The use of minoxidil in treating progressive systemic sclerosis"

(5) Start Date: Jan 1979 (6) Est Compl Date: March 1984

(7) Principal Investigator:
JAMES E. FITZPATRICK, M.D.
Maj, MC

(8) Facility: FAMC
Dermatology Service

(9) Dept/Svc: Dermatology/DCI

(10) Assoc Investigators:
John Harbel, Cpt, MSC
Thomas P. O'Barr, PhD, DAC
Ellen Swanson, MS, DAC

(11) Key Words:
Scleroderma/minoxidil/fibroblasts/collagen.

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period:

d. Total Number of Subjects Enrolled to Date:

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

(15) Study Objective: To determine if minoxidil inhibits the in-vitro production of collagen by normal and scleroderma fibroblasts.

(16) TECHNICAL APPROACH: Fibroblast cell lines will be established in vitro from human dermis obtained from normal and scleroderma patients. The fibroblasts will then be incubated in the presence of various concentrations of minoxidil. The production of collagen will indirectly be measured by the incorporation of radioactive proline with subsequent hydroxylation to hydroxyproline. The radioactive hydroxyproline will then be assayed.

(17) PROGRESS: The in-vivo portion of the protocol was completed as of Sep 30, 1982. In the in-vitro portion of the study, the following progress has been made:

a. Fibroblast cell lines from both normal and scleroderma cell lines have been established.

b. Preliminary trials have resulted in the successful development of an assay of tritrated hydroxyproline as a measure of collagen production.

c. The first run on one normal and one scleroderma cell line has been completed to date.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 78/114

SERVICE Dermatology DEPARTMENT Medicine

None

Presentations:

Fitzpatrick, J.E.: A New Treatment for Scleroderma. Presented: Eighth Annual Uniformed Services Dermatology Seminar, Colorado Springs, CO, May 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/117 (3) Status: **Terminated**

(4) Title: **Parasitic Infestation**

(5) Start Date: **1978**	(6) Est Compl Date: **1983**
(7) Principal Investigator: **H. S. Nelson, M.D.** **COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Allergy Svc**	(10) Assoc Investigators: **Lyndon Mansfield, M.D., LTC, MC** **Praphan Phanupahak, M.D., Ph.D.**
(11) Key Words: **parasites** **IgE skin tests**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: ongoing
c. Number of Subjects Enrolled During Reporting Period: NA
d. Total Number of Subjects Enrolled to Date: NA
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To determine whether antiparasite antibodies of the IgE class present in high concentrations in patients with infestations are able to saturate receptors in the mast cells and in so doing block mast cell sensitization by IgE antibody directed toward inhaled allergen.**

(16) Technical Approach: Evidence for mast cell IgE receptor saturation will be sought by comparing the direct immediate wheal and flare skin test to circulating levels of IgE specific for the same allergen. The clinical portion of this study will be performed in Thailand by Dr. Phanupahak. The laboratory portion will be performed at Fitzsimons.

(17) Progress: The clinical portion of this protocol was to have been performed by Dr. Phanupahak in Bangkok, Thailand, with the Allergy-Immunology Service at Fitzsimons merely providing laboratory support. No reports or specimens have ever been received from Dr. Phanupahak nor has he answered letters regarding the protocol, and therefore, it should be considered terminated.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/118 (3) Status: Completed

(4) Title: **Measurement of Anatomic Deadspace Using Multiple Inert Gas Analysis: Comparison with Fowler's TEchnique and Application of Steady-state Diffusion Estimates.**

(5) Start Date: October 1978 (6) Est Compl Date: Completed

(7) Principal Investigator:
Perry, Michael E.

(8) Facility: FAMC

(9) Dept/Svc: **Medicine/Pulmonary**

(10) Assoc Investigators:
Kindig, N.B.

(11) Key Words:
dead space
Fowler method

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: Completed

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 6

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To develop a new method for measurement of anatomic dead space, and compare it with more traditional methods.**

(16) Technical Approach: A mixture of Neon, Argon and Oxygen is inhaled in a specific sequence and analysis of exhaled breath is performed on two sequential respirations. The measurement is repeated utilizing the Fowler method and the two compared.

(17) Progress: This protocol was completed in 1980, and further applications will be addressed in future protocols. We were able to demonstrate the reproducibility of our method and its relationship to Fowler's technique. The method was found to be quite cumbersome, primarily because of our reliance on gas chromatography. Application to COPD patients will be delayed until arrival of our mass spectrometer, at which time a new protocol will be submitted in support of this project.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/123 (3) Status: Ongoing

(4) Title: **A Comparison of the Zimmerer and Dubois Techniques of Airway Resistance Measurements by Body Plethysmography**

(5) Start Date: 1979	(6) Est Compl Date: Indefinite
(7) Principal Investigator: **Michael E. Perry, LTC, MC**	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Pulmonary	(10) Assoc Investigators: **Robert W. Zimmerer, Ph.D.** **Robert J. Browning, B.S.**
(11) Key Words: **alveolar pressure** **airway resistance** **body plethysmography**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jan 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 7

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To compare a clinically untried measurement of airway resistance with a standard technique.**

(16) Technical Approach: Forced expiratory manuevers are performed with the subject seated in a constant volume body plethysmograph, while plethysmograph pressure and airflow are monitored and recorded with a DEC PDP11/10 computer. With this information and the previously determined FRC of the patient, alveolar pressure is calculated throughout the expiratory manuever. Pressure flow relationships are then related to the patient's maximal expiratory flow volume loop.

(17) Progress: This protocol has been inactive during the past FY due to other priorities and technical changes that need to be made.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 78/123

SERVICE Pulmonary Disease Service DEPARTMENT of Medicine

1.) Perry, M.E., Zimmerer, R.W., Browning, R.J.: Non-Invasive Alveolar Pressure/Flow Pattern Determination by Computerzied Plethysmography (Abstrast) Symposium on Computers in Critical Care in Pulmonary Medicine, Page 47, June 1980.

2.) Perry, M.E., Zimmerer, R.W., Nelson, R.A., Browning, R.J., Non-Invasive Determination of Alveolar Pressure-Flow Relationship (Abstract) American Review of Respiratory Disease, Volume 121, Page 389, April 1980.

3.) Zimmerer, R.W., Perry, M.E., Browning, R.J.: Expiratory Pressure/Flow Assessment by Plethysmography (Abstract) AAMI 15th Annual Meeting, Page 246, April 1980.

4.) Perry, M.E., Zimmerer, R.W., Browning, R.J., "Non-Invasive Alveolar Pressure/Flow Pattern Determinations by Computerized Plethysmography", Computers in Critical Care and Pulmonary Medicine, Volume 2, PP 75-77, Plenum Press, 1982.

PRESENTATIONS:

1.) Perry, M.E., Zimmerer, R.W., Browning, R.J.: Non-Invasive Alveolar Pressure/Flow Pattern Determination by Computerized Plethysmography, presented at the annual Computers in Critical Care and Pulmonary Medicine, Lund, Sweden, June 3-6, 1980.

2.) Zimmerer, R.W., Perry, M.E., Browning, R.J.: Expiratory Pressure/Flow Assessment by Plethysmography, presented at the AAMI 15th Annual Meeting San Francisco, April 13-17, 1980.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/124 (3) Status: Ongoing

(4) Title: **A Self Consistent Method of Single Breath DLCO Measurement**

(5) Start Date: **September 1978**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Michael E. Perry, LTC, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Pulmonary**	(10) Assoc Investigators: **Neal B. Kindig, Ph.D.** **Robert J. Browning, B.S.**
(11) Key Words: **single breath diffusion** **alveolar gas** **breathing patterns**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jan 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 5

d. Total Number of Subjects Enrolled to Date: 5

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To experimentally confirma proposed new method of DLCO measurement.**

(16)Technical Approach: Data will be sampled during the single breath DLCO determination at various breath holding times and at various exhaled lung volumes. Data will be analyzed online by computer which will correct for volume averaging an effective breath holding time. If the theoretical approach as outlined in the original protocol is self-consistent, the calculated diffusion capacity should remain constant regardless of breathing pattern or gas collection timing.

(17) Progress: This protocol has been inactive this FY due to other priorities within the Service.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 78/124

SERVICE Pulmonary Disease Service DEPARTMENT of Medicine

1.) Kindig, N.B., Hazlett, D .R., Filley, G.F.: "Timing and Volume Averaging in Single Breath DLCO Measurement". The Physiologist, 21:64, 1978.

2.) Browning, R.J., Kindig, N.B., Perry, M.E., "Computer Control Aspects of a Single Breath DLCO Station." Biomedical Sciences Instrumentation, Volume 18, April, 1982.

3.) Kindig, M.B., Perry, M.E., Browning, R.J., "Single Breath DLCO: Inspiratory Timing and Volume Averaging (ABS) Federation Proceedings, Volume 41, Mar, 1982.

PRESENTATIONS:

1.) Zimmerer, R.W.: Simulated Diffusion Testing. Presented: 32nd Annual Pulmonary Symposium, FAMC, Aurora, CO, September 1979.

2.) Browning, R.J., Kindig, N.B., Perry, M.E., "Computer Control Aspects of a Single Breath DLCO Station." Presented at the Nineteenth International Instrument Society of America Biomedical Sciences Instrumentation Symposium, Denver, CO, April, 1982.

3.) Kindig, N.B., Perry, M.E., Browning, R.J., "Single Breath DLCO: Inspiratory Timing and Volume Averaging". Presented at the Annual FASEB Meeting, New Orleans, April, 1982.

4.) Kindig, N.B., "Single Breath DLCO: Improved Time and Volume Measurement". Presented at the Annual Carl W. Tempel Pulmonary Symposium, Denver, CO, Jan, 1982.

5.) Perry, M.E., "Mechanism of Carbon Monoxide Effect on Oxyhemoglobin Dissociation". Presented at the Annual Carl W. Tempel Pulmonary Symposium, Denver, CO, Jan, 1982.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/105 (3) Status: Ongoing

(4) Title: **Breathing Pattern Effects on Steady State DLCO Measurement**

(5) Start Date: **November 1979**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Michael E. Perry, MD** **LTC, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Pulmonary Dis**	(10) Assoc Investigators: **Neal B. Kindig, Ph.D.**
(11) Key Words: **steady state DLCO** **breathing pattern**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To experimentally confirm theoretically determined corrections for breathing patterns during steady state diffusion studies.**

(16) Technical Approach: Breathing patterns - various breathing patterns including inspiratory and expiratory breath holds will be performed while the subject performs during the standard steady state diffusion measurement. If our approach is correct, mathematical corrections for breathing pattern will results in a constant value for diffusion capacity.

(17) Progress: This protocol is presently inactive, however, after specific revisions the protocol will continue at a later date. The results have significantly advanced the diagnostic armamentarium at FAMC. The specially designed DLCO apparatus (created completely locally) is much more accurate and reproducible and much faster than any other insturment commercially available. No adverse reactions or complaints have occurred.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 79/105

SERVICE Pulmonary Disease Service DEPARTMENT of Medicine

1.) Perry, M.E., Browning, R.J., Kindig, N.B., "The Abbreviated Alveolar Air Equation Revisited, Chest, Volume 80, PP 763-764, December, 1981.

PRESENTATIONS:

1.) Kindig, N.B.: $D_L CO_{ss}$ correction using PaCO back pressure predicted from venous blood. Presented: Carl E. Tempel Pulmonary Symposium, Denver, Colorado, January, 1981.

2.) Perry, M.E.: Simplified room air (A-a)O_2 D calculation. Presented: Carl E. Tempel Pulmonary Symposium, Denver, Colorado, January, 1981.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/106 (3) Status: **Terminated**

(4) Title: **Measurement of Lung Compliance Utilizing PUlmonary Capillary Wedge Pressures.**

(5) Start Date: **June 1979**	(6) Est Compl Date: **Terminated**
(7) Principal Investigator: **Maran, Antii**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Pulmonary**	(10) Assoc Investigators: **Perry, Michael E.** **Zimmerer, Robert**
(11) Key Words: **wedge pressure** **lung compliance**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: **Terminated**

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To investigate the potential of wedge pressure measurements in the assessment of lung compliance.**

(16) Technical Approach: Utilizing the Swan-Ganz Catheter in the wedge position, simultaneous measurement of intrathoracic pressure will be made from an esophageal balloon. Comparison of these two measurements will then be made.

(17) Progress: The central required piece of equipment, the ADCAR recording system has finally been completed. However, other applications of this system, in support of other protocols will be made. Further work on this protocol has been halted, primarily because more intense interest has developed in other areas.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/107 (3) Status: Completed

(4) Title:
The Effects of Fructose on Reactive Hypoglycemia

(5) Start Date: 1979	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Fred D. Hofeldt, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Endocrine	(10) Assoc Investigators: Jerrold Olefsky, MD, USHSC Phyllis Crapo, UCHSC John Scarlett, MD, UCHSC
(11) Key Words: fructose reactive hypoglycemia	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 3/83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 7
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

The objective of this study is to determine whether patients with reactive hypoglycemia will experience alterations in their glucose, insulin and counter-regulatory hormones following testing of glucose, fructose solutions and fructose meals. Patients with bonafide reactive hypoglycemia previously identified as having this disorder at Fitzsimons Army Medical Center will be further studied under Clinical Research Unit.

(16) Technical Approach:

Patients with standard dietary intake will undergo the glucose tolerance test with measurements of insulin, glucagon and counter-regulatory hormones in response to either glucose, sucrose or fructose as a test solution or meal. Glucose clamp study to determine insulin sensitivity will be performed in an adipose tissue biopsy for measurement of in vitro insulin sensitivity in isolated adipose sites. It will be performed on each subject.

(17) Progress:

Seven patients have been studied as noted in previous report. No new patients have been studied because of personnel shortages in the Endocrine/Metabolic Service. This study has been completed.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 79/107

SERVICE Endocrine DEPARTMENT Medicine

(1) Crapo, P.A., Scarlett, J.A., Kolterman, O.G., Sanders, L.R., Hofeldt, F.D., and Olefsky, J.M.: The Effects of Oral Fructose, Sucrose and Glucose in Subjects With Reactive Hypoglyemia. Diabetes Care 5:512, 1982.

PRESENTATIONS: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/109 (3) Status: Ongoing

(4) Title: **Control of Nausea and Vomiting with Delta-9-tetrahydro-cannabinol (THC) Combined with Standard Antiemetics (A Phase II Study)**

(5) Start Date: June 1980 (6) Est Compl Date: July 1984

(7) Principal Investigator:
Nicholas J. DiBella, MD,COL,MC

(8) Facility: FAMC

(9) Dept/Svc: **Medicine/Hema-Oncology**

(10) Assoc Investigators:
Arlene J. Zaloznik, MD, MAJ, MC

(11) Key Words:
Chemotherapy, nausea and vomiting control

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: Ongoing (Randomized portion closed)

c. Number of Subjects Enrolled During Reporting Period: 4

d. Total Number of Subjects Enrolled to Date: 54

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

See block 17

(15) Study Objective:

1) To determine if THC has a useful antiemetic effect when added to standard antiemetic regimen.
2) To determine if the antiemetic effect is additive or potentiating.
3) To determine if THC reduces nausea and vomiting in those patients who do not respond to standard antiemetics.

(16) Technical Approach:
Clinical study

(17) An additional four patients have been placed on the study. Excellent antiemetic effect was noted on 2 patients and minimal antiemetic effect was noted in the other 2 patients. Only one patient experienced significant CNS toxicity (aberrant behavior with agitation).

Publications and Presentations: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/110 (3) Status: Terminated

(4) Title: Evaluation of Local Anesthetic Skin Testing and Progressive Challenge in Patients with a History of an Adverse Reaction to Local Anesthetic

(5) Start Date: 1979	(6) Est Compl Date: Jan 1983
(7) Principal Investigator: Harold S. Nelson, M.D., COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Allergy	(10) Assoc Investigators: multiple
(11) Key Words: local anesthetic adverse drug reaction	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Jan 83 b. Review Results: Terminated

c. Number of Subjects Enrolled During Reporting Period: unknown

d. Total Number of Subjects Enrolled to Date: 30-40

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: To confirm the safety and usefulness of the progressive challenge in a large number of patients with histories of previous suspected adverse reactions to local anesthetics.

(16) Technical Approach: Patients with a history of an adverse reaction to local anesthetics will under progressive challenge with these drugs as has been practiced over the last eight years in the Fitzsimons Allery Clinic. The historical data and results of challenge will be accumulated for future correlations.

(17) Progress: This protocol has been terminated by the Principal Investigator.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/111 (3) Status: Terminated

(4) Title: A Comparison of the Development of Sensitivity to Penicillin in Normal and Atopic Individuals

(5) Start Date: 1980	(6) Est Compl Date: 1983
(7) Principal Investigator: Harold S. Nelson, M.D., COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Allergy	(10) Assoc Investigators:
(11) Key Words: penicillin allergy	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: Terminated

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: To determine the frequency with which normal and atopic individuals develop positive immediate wheal and flare skin test to penicillin following a course of therapy with the drug.

(16) Technical Approach: Children scheduled to receive a course of penicillin therapy will be skin tested prior to receiving the course of therapy to both penicillin and several pollen allergens. They will return for follow-up skin testing several weeks after completing the course of therapy. Data will be analyzied in terms of the frequency with which patients have unexpected positive skin test to penicillin that they develop positive skin test following a course of therapy and the relation of this to the evidence of allergy as demonstrated by positive skin test to inhalant allergens.

(17) Progress: It has not been possible thus far to effectively recruit patients for this protocl at FAMC and the protocol has been terminated.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/112 (3) Status: Ongoing

(4) Title: **Use of Sodium Salt of Allopurinol to Control Hyperuricemia in Patients with No Therapeutic Alternative. A Pilot Study.**

(5) Start Date: March 1980	(6) Est Compl Date: 1985
(7) Principal Investigator: **N.J. DiBella, M.D., COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Hema-Oncology**	(10) Assoc Investigators: **Kenneth Beougher, CPT, MSC**
(11) Key Words: **Hyperuricemia, Allopurinol**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: continued
c. Number of Subjects Enrolled During Reporting Period: None
d. Total Number of Subjects Enrolled to Date: Three
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".
None

(15) Study Objective:
To determine the effect of a parenteral form of allopurinol to control hyperuricemia when the patient is unable to take the tablet form (commercially available).

(16) Technical Approach:
Clinical Study

(17) **Progress:**
No new patients have been entered on this study but it should be kept open since the medication is not commercially available and it may be needed in the patient who requires antitumor therapy but is unable to take oral allopurinol.

Publications and Presentations: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/103 (3) Status: Terminated

(4) Title:

Etoposide (VP-16-213) Single Agent Chemotherapy in Small Cell Lung Cancer Patients Refractory to First Line Chemotherapy

(5) Start Date: June 1980	(6) Est Compl Date: 1982
(7) Principal Investigator: Arlene J. Zaloznik,M.D.,MAJ,MC	(8) Facility: FAMC
(9) Dept/Svc: Hem/Onc	(10) Assoc Investigators: Nicholas J. DiBella, M.D., COL, MC
(11) Key Words: Chemotherapy protocol, small cell lung cancer	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jun 83 b. Review Results: To continue

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 2

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

To test the efficacy of VP-16-213 in patients with recurrent or metastatic small cell CA of the lung.

(16) Technical Approach:

Clinical study.

(17) Progress:

Because of the overall poor response rate obtained with single agent VP-16-213 Bristol Laboratories has closed this protocol.

Publications and Presentations: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/104 (3) Status: Ongoing

(4) Title: **Etoposide Combined with Cyclophosphamide Plus Vincristine Compared to Both Doxorubicin Plus Cyclophosphamide Plus Vincristine in the Treatment of Small Cell Lung Cancer**

(5) Start Date: 1980	(6) Est Compl Date: Unknown
(7) Principal Investigator: **Arlene J. Zaloznik, M.D.** **Major, MSC**	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Hema-Oncology	(10) Assoc Investigators: **Nicholas J. DiBella, M.D.** **Colonel, MC**
(11) Key Words: **Small cell** **Oat Cell** **Chemotherapy**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 6/83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 1

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **None**

(15) Study Objective: **To assess the efficacy of Etoposide combined with other chemotherapy for the treatment of small cell lung cancer.**

(16) Technical Approach: Clinical study.

(17) Progress: Communication with Bristol Laboratories in April 1983 revealed that the cyclophosphamide plus vincristine arm was discontinued because of poor patient survival. No data is as yet available for the arms of the study using Etoposide.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/108 (3) Status: Completed

(4) Title:
Topical Cocaine for the Relief of Stomatitis in Patients with Malignancies: A Double-Blind Study.

(5) Start Date: Oct/80	(6) Est Compl Date: Completed
(7) Principal Investigator: **N.J. DiBella, M.D., COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Hem/Onc**	(10) Assoc Investigators: **Richard A. Artim, M.D., MAJ, USAF, MC**
(11) Key Words: **Chemotherapy,** **Cocaine,** **Stomatitis**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Sep 83 b. Review Results: Completed
c. Number of Subjects Enrolled During Reporting Period: 5
d. Total Number of Subjects Enrolled to Date: 12
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

See block 17

(15) Study Objective:
a. **To determine whether topical cocaine is better than Viscous Xylocaine in the treatment of stomatitis.**
b. **To determine which concentration of cocaine affords optimal relief and the fewest side effects in the treatment of stomatitis.**

(16) Technical Approach:
Clinical study - Three different concentrations of cocaine combined with Viscous Xylocaine will be tested against Viscous Xylocaine alone in the relief of pain due to stomatitis.

(17) Progress:
Five additional patients entered during Fiscal 83. Of the 12 patients studied, significant relief was obtained in 8 (66%). No significant toxicity was encountered.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 80/108

SERVICE Hematology/Oncology DEPARTMENT Medicine

Publications: Artim, R., DiBella, N.J., Bourg, W.:
Relief of Antineoplastic Therapy-induced Stomatitis Pain with Low Concentration Topical Cocaine. (Abst.)
Proc. Am. Soc. Clin. Onc. 2:93, 1983.

Presentations: None.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/115 (3) Status: Ongoing

(4) Title: **Amiodarone Treatment for Severe, Refractory Cardiac Arrhythmias**

(5) Start Date: 1980	(6) Est Compl Date: indefinite
(7) Principal Investigator: **Richard C. Davis, Jr., MD, LTC, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Cardiology**	(10) Assoc Investigators:
(11) Key Words: **amiodarone** **cardiac arrhythmias**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Sep 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 4

d. Total Number of Subjects Enrolled to Date: 5

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To control symptomatic cardiac arrhythmias which have not been responsive to the conventional and accepted forms of treatment or whose control is dependent upon the use of a drug which has been shown to be harmful to or in other ways not tolerated by the individual.**

(16) Technical Approach: After patient selection, baseline laboratory results as outlined in the protocol will be obtained. After initiation of therapy, the patient will be followed regularly by the principal investigator with frequent Holter monitors to assess the efficacy of the drug and other laboratory tests and examination to warn of potential toxicity.

(17) Progress: Maintenance doses of amiodarone continues to act as a cardiac arrhythmic suppressor. All potential benefits have outweighed any possible risks involved

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/117 (3) Status: on-going

(4) Title: Correlation of clinical signs and symptoms with assays of circulating immune complexes.

(5) Start Date: Oct 80	(6) Est Compl Date: Jan 84
(7) Principal Investigator: W. Ronald Tipton, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: R. Stephen Whitaeker, PhD, CPT, MSC Vasundhara Iyengar, MD, MAJ, MC Jeneen Nelson, MD
(11) Key Words: immune complexes C1Q laboratory assays	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Nov 82 b. Review Results: continue

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

NA

(15) Study Objective:

The purpose of this study is to determine the relative sensitivity of several laboratory assays for immune complexes in patients with suspected immune complex disorders.

16) Technical approach: Patients in whom serum is submitted for antinuclear antibodies will have a standard clinical evaluation and their serum will be examined by a standardized battery of four assays for circulating immune complexes. Correlations will then be made to determine which of the assays best reflects clinical disease.

17) Progress: At last report approximately 200 samples had been completed and toward a total of some 500. An initial evaluation is going to be done on these specimens so that Dr. Iyengar can hopefully present this at a hematology meeting. The due date for her abstract is the latter part of Oct 83. It is conceivable that this protocol will be completed during this fiscal year.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/118 (3) Status: Ongoing

(4) Title:
5-Azacytidine in the Treatment of Acute Nonlymphocytic Leukemia

(5) Start Date: Nov 80	(6) Est Compl Date: Unknown
(7) Principal Investigator: Arlene J. Zaloznik,M.D.,MAJ,MC	(8) Facility: FAMC
(9) Dept/Svc: Hematology/Oncology	(10) Assoc Investigators: Nicholas J. DiBella, M.D., COL, MC
(11) Key Words: 5-Azacytidine, Acute leukemia	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Dec 82 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 6
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". No adverse drug reactions.

(15) Study Objective:

To determine the efficacy of 5-Azacytidine in patients with acute nonlymphocytic leukemia who have relapsed after conventional chemotherapy.

(16) Technical Approach:

Patients who have proved to be refractory to standard forms of acute leukemia are given 5-Azacytidine in an attempt to induce remission.

(17) Progress:

Although no patients have been registered during the last year it is recommended that this protocol continue to be open for patients with refractory leukemia until such time as 5-Azacytidine becomes commercially available.

Publications and Presentations: None.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/120 (3) Status: Ongoing

(4) Title: Evaluation of Carbohydrate Metabolism in Thyrotoxicosis: Investigations Into the Frequency, Type and Mechanisms of Carbohydrate Tolerance

(5) Start Date: April 1981 (6) Est Compl Date: October 1984

(7) Principal Investigator:

Gerald S. Kidd, MD, LTC, MC

(8) Facility: FAMC

(9) Dept/Svc: Medicine/Endocrinology

(10) Assoc Investigators:

T. P. O'Barr, Ph.D.
Fred D. Hofeldt, MD, COL, MC

(11) Key Words:

carbohydrate intolerance
thyrotoxicosis

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 4

d. Total Number of Subjects Enrolled to Date: 7

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective: The first objective of the study is to determine the frequency and reversibility of carbohydrate intolerance in thyrotoxicosis and to determine the importance of gut factors by doing oral and intravenous glucose tolerance tests. The second objective is to study the mechanisms of carbohydrate intolerance. This objective will be approached by measuring glucose, insulin, glucagon and free fatty acids, basally and after oral or intravenous glucose and by measuring the responses to exogenous insulin.

(16) Technical Approach: Ten non-diabetic patients who are taking no medications, are less than age 45, are less than 120% of ideal body weight, will be studied while thyrotoxic and after recovery. Each patient will have an oral and an intravenous glucose tolerance test. Each patient will have an insulin tolerance test basally and following glucose infusion.

(17) Progress: Four more patients have been studied and 2 patients have been retested when euthyroid. Progress has been slower than we anticipated, but should complete this year.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/121 (3) Status: Ongoing

(4) Title: An Evaluation of Pituitary and Thyroid Hormonal Responses to a 4-Hour Continuous and a Bolus Intravenous Infusion of TRH as a Useful Test of Thyroidal Functional Reserve

(5) Start Date: March 1981 (6) Est Compl Date: July 1984

(7) Principal Investigator:

Michael Bornemann, MD, COL, MC

(8) Facility: FAMC

(9) Dept/Svc: Medicine/Endocrine

(10) Assoc Investigators:

Gerald S. Kidd, MD, LTC, MC
Fred D. Hofeldt, MD, COL, MC
William J. Georgitis, MD, MAJ, MC

(11) Key Words:
thyroid functional reserve
pituitary
thyroid axis
TRH infusion

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 4/83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 28
d. Total Number of Subjects Enrolled to Date: 29
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

The objective of this study is to determine if the diagnosis of mild or subclinical hypothyroidism can be more clearly established by some integrated parameter reflecting both the pituitary and thyroidal reserve responses to intravenous thyrotropin releasing hormone.

(16) Technical Approach:

Three groups of subjects will be evaluated in this protocol. Group 1 will consist of normal control patients; Group 2 will consist of patients with mild hypothyroidism diagnosed by an elevated TSH level but normal thyroid hormone levels; Group 3 will consist of patients with the Thyroid Clinic with high-normal TSH values and normal thyroid function tests, but who are clinical suspects of having mild hypothyroidism. The patients will undergo two TRH infusion tests in a random manner consisting of conventional bolus administration of 500 ug of TRH solution and the constant infusion of TRH over a 4-hour period with 500 ug of TRH diluted in normal saline and diffused at a rate of 2 ug per minute over the 4 hours using a Harvard infusion pump. The TSH values in the various groups of patients will be determined and statistically analyzed for differences between the groups.

CONTINUATION SHEET, FY 83 ANNUAL PROGRESS REPORT Proto No.: 80/121

(17 Progress:

Complete data compiled on 16 patients. Paper submitted for Hugh Mahon Award (June 1983) and abstract submitted to American Federation of Clinical Research, Western Section (September 1983). Although 28 subjects have been tested results have had to be discarded on 7 patients because of technical difficulties. Anticipate completing laboratory data on remaining subjects and hopefully studying 5-6 more patients before concluding study in July 1984.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 80/121

SERVICE Endocrine DEPARTMENT Medicine

1. Bornemann, M.: Pitfalls in Mild Subclinical Hypothyroidism: Comparison of TRH Bolus and Infusion. Submitted for Hugh Mahon Award, FAMC, May 1983.

2. Bornemann, M., Kidd, G.S., and Hofeldt, F.D.: Comparison of Thyrotropin Releasing Hormone Bolus and Infusion Testing in Patients with Suspected Subclinical Hypothyroidism. Submitted to American Federation of Clinical Research, Western Section for presentation at Western Meeting, Carmel, CA, February 1984. (Abst.)

PRESENTATIONS: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/100 (3) Status: Terminated

(4) Title: **Evaluation of Thiazide Use and Cholelithiasis**

(5) Start Date: 3 March 1982	(6) Est Compl Date: Terminated 1983
(7) Principal Investigator: Steve H. Parker, M.D. Gregory J. DeWerd, M.D. Stanley F. Smazal, M.D.	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Cardiology	(10) Assoc Investigators: Bob Kazenoff, M.D. Thomas Brewer, M.D. Nasser Ghaed, M.D.
(11) Key Words: cholelithiasis thiazides	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Terminated

c. Number of Subjects Enrolled During Reporting Period: -

d. Total Number of Subjects Enrolled to Date: 175

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective: a) To objectively evaluate the reported association between thiazide use and gallbladder disease. b) To evaluate the dose-response relation of the duration of thiazide usage to cholelithiasis. c) To evaluate a possible relationship between other antihypertensives and gallbladder disease.

(16) Technical Approach: Approximately 300 total patients (divided into three groups of 100 each) will be evaluated. One group is designated the control group, a second is designated the hypertensive control group, and the third group is comprised of hypertensive patients on thiazides. All patients in the above three groups are evaluated by ultrasound for the detection of cholelithiasis.

(17) Progress: This protocol has been terminated due to all Principal Investigators leaving FAMC.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81-101 (3) Status: Ongoing

(4) Title:
Developement and evaluation of rapid immunologic procedures for the diagnosis of Giardiasis.

(5) Start Date: 5 May 1981	(6) Est Compl Date: May 1984
(7) Principal Investigator: Thomas G. Brewer, M.D. Major, MC	(8) Facility: FAMC FAMC
(9) Dept/Svc: Gastroenterology/DCI	(10) Assoc Investigators:
(11) Key Words: Diarrhea, Giardiasis, Giardia lamblia immunodiagnosis.	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: May 1983 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: Eleven
d. Total Number of Subjects Enrolled to Date: Forty-four
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

N/A - No drug administration.

(15) Study Objective:
To develop immunodiagnostic procedures for rapid detection of Giardia lamblia antigen in fecal and doudenal aspirate specimens and the detection of anti-Giardia antibodies in the serum of patients infected with Giardiasis. To evaluate the efficacy of these tests for rapid diagnosis of Giardiasis in a select patient population.

(16) Technical Approach: We have not deviated from the technical approach described in detail in the protocol except for an alteration of the protocol in which patients undergoing diagnosis of Giardiasis by use of the enterotest string procedure are asked to undergo a followup enterotest after treatment with the medication of the primary physicians choice. Ammendment to the patients consent for which includes this alteration has been previously forwarded under a separate cover to DCI through Chief Judge Advocate's Office, FAMC (25 Oct 83).

(17) Progress: Two separate strains of G. lamblia have been cultivated as part of Pahse I and cultures on ongoing at the present time. Three groups of rabbits have been utilized to produce anti-Giardia sera as a part of Phase II. Phase III is ongoing and has included development in testing of IFA, ELISA, CIE, and co-agglutination procedures. Ninety sera and 162 fecal specimens have been collected for evaluation during Phase IV and 88 of these sera have been shipped to CDC for IFA testing. Preliminary results have been returned from CDC and data are being analyzed and corelated with clinical patient data. Fresh stool specimens enterotest duodenal fluid specimens have been obtained before and after treatment of diagnosed Giardia infections in eight patients.

PUBLICATIONS AND PRESENTATIONS: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/102 (3) Status: TERMINATED

(4) Title: Treatment of herpes zoster with high-dose versus low-dose systemic steroids.

(5) Start Date: 1 Jul 1981	(6) Est Compl Date: TERMINATED
(7) Principal Investigator: James E. Fitzpatrick, M.D. Maj, MC	(8) Facility: FAMC Dermatology Service
(9) Dept/Svc: Dermatology/DOM	(10) Assoc Investigators:
(11) Key Words: Herpes zoster/steroids	Dennis L. May, M.D.
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 7

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective: The primary study objective is to determine if high dose prednisone (80mg per day) is more effective than moderate dose oral prednisone (40mg per day) in the prevention of post herpetic neuralgia secondary to herpes zoster.

(16) TECHNICAL APPROACH: A double-blind study compares high versus medium dose oral prednisone in the prevention of post herpetic neuralgia. Subjective testing and objective evaluation os nerve damage using pinprick and histamine flare skin test is utilized. Patients are followed on days 3, 7, 14, 21 and 60.

(17) PROGRESS: Seven patients have been entered in this protocol and six have completed the protocol during fiscal year 1 Oct 1981 to 30 September 1982. All patients had resolution of their herpetic pain. The protocol was discontinued because of the difficulty in enrolling patients.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/104 (3) Status: on-going

(4) Title:

The incidence of host defense deficiency in patients presenting with frequent or prolonged infections

(5) Start Date: 1982	(6) Est Compl Date: approx. 1987
(7) Principal Investigator: W.Ronald Tipton, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: Harold S. Nelson, MD, COL, MC R. Stephen Whitaeker, CPT, MSC Joseph Lima, BAC Fellows, Allergy-Immunology Service
(11) Key Words: immunodeficiency infection laboratory tests	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: July 83 b. Review Results: continue

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: 6

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:

To determine the cost effectiveness of performing various laboratory evaluations of immune responsiveness in patients presenting with frequent or prolonged infections.

16) Technical approach: Patients who are referred for this protocol will have a standarized clinical evluation by the fellows in the Allergy-Immunology Service and then will have a standard battery of tests performed to evaluate their immune status and phagocytic function. On the basis of the clinical history certain laboratory tests will be determined to have been clinically indicated, subsequently the yield from the routine battery of tests will be compared to the yield from thos tests which were thought to have been clinically indicated.

17) Progress: This protocol is continuing. We now have enrolled 6 patients and it is anticipated that we will continue to enroll from 6-12 patients per year. It is anticipated that it will take approximately 5 yrs. to accumulate enough patients to complete the protocol.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/105 (3) Status: Completed

(4) Title: **Measurement of the Effect of Specific IgG on In Vitro Determinations of Specific IgE**

(5) Start Date: 1981	(6) Est Compl Date: 1983
(7) Principal Investigator: **H.S. Nelson, M.D.** **COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Allergy	(10) Assoc Investigators: **Allergy-Immunology Service**
(11) Key Words: **rast** **blocking antibody interference**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Jul 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To determine whether the presence of allergen-specific IgG interfers with determinations of IgE directed towards the same allergen by the in vitro radioallergosorbent test (RAST).**

(16) Technical Approach: Serum specimens were obtained from patients before and following the initiation of allergy immunotherapy. Sera were adsorbed with staphylococcal antigen A to remove the IgG. RAST determinations were made before and after adsorption on sera taken prior to and during the course of allergy immunotherapy. They were analysed for the effect of removal of the blocking antibody on the RAST titers.

(17) Progress: A total of 63 sera have been studied. The results are undergoing analysis.

Publications: none

Presentation:

Ledoux, Robert: Measurement of the Effects of Specific IgG on the Levels of specific IgE as Measured by the Radioallergosorbent Test. Presented: Annual Meeting American Academy of Allergy, Montreal, Canada, 6-10 March 1982.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/106 (3) Status: on-going

(4) Title: Clinical effectiveness and development of subsensitivity with chronic administration of atropine methonitrate

(5) Start Date: not started	(6) Est Compl Date: indefinite
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators:
(11) Key Words: subsensitivity anticholinergics	none
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jul 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

N.A.

(15) Study Objective:
To determine the effect of chronic administration on the bronchodilator response to atropine.

(16) Technical Approach: The efficacy will be determined by a double-blind placebo atropine comparison, each of one week's duration monitored by home measurement of pulmonary function.

(17) Progress: No studies have been undertaken under this protocol.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/107 (3) Status: Completed

(4) Title: **Relation of distance and direction on the effect of one immediate wheal and flare skin test upon another**

(5) Start Date: 1981	(6) Est Compl Date: NA
(7) Principal Investigator: **H.S. Nelson, M.D.** **COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Allergy**	(10) Assoc Investigators: **W.R. Tipton, COL, MC** **William Vinson, COL, MC** **Dane McBride, MAJ, MC**
(11) Key Words: **skin test** **false positive**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jul 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 6

d. Total Number of Subjects Enrolled to Date: 12

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". *none*

(15) Study Objective: **To determine the incidence of false-positive prick tests caused by adjacent strongly positive tests and to see to what extent this is related to the distance and direction of the two sites.**

(16) Technical Approach: Patients with known positive skin tests return to the clinic where a strongly positive prick test is placed in the center and 4 negative skin tests or saline are placed peripherally to the strong one at varying distances.

(17) Progress: It became apparent that a very large number of subjects would be required. One of the associate investigators, Dr. McBride, will institute a modification of this protocol at his new duty station at Fort Bragg, NC, and, therefore, the local protocol is completed.

Publications: none

Presentation:

Vinson, William: Relation of Distance and Direction on the Effect of One Immediate Wheal and Flare Skin Test Upon Another. Presented: Annual Meeting of the American College of Allergists, Miami Beach, FL, 16-20 January 1982.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/108 (3) Status: Completed

(4) Title: **The Development of Class Specificity of Tolerance to Antihistamine Drugs**

(5) Start Date: **1981**	(6) Est Compl Date: **1983**
(7) Principal Investigator: **H.S. Nelson, M.D.** **COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Allergy**	(10) Assoc Investigators:
(11) Key Words: **antihistamines** **tolerance**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jul 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 10

d. Total Number of Subjects Enrolled to Date: 26

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To determine whether tolerance develops to antihistamine medication in the course of chronic administration and if it does, whether it is specific for the class of antihistamine administered.**

(16) Technical Approach: Repetitive skin testing to mast cell mediator releasing agents and to histamine.

(17) Progress: All patient studies have now been completed. Analysis of the data has begun.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/109 (3) Status: Ongoing

(4) Title:

Southwestern Oncology Group Collaborative Studies

(5) Start Date:	(6) Est Compl Date: Indefinite
(7) Principal Investigator: **Arlene J. Zaloznik,M.D.,MAJ,MC**	(8) Facility: FAMC
(9) Dept/Svc: Hematology/Oncology	(10) Assoc Investigators: **Nicholas J. DiBella, M.D., COL, MC**
(11) Key Words: **Chemotherapy**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: To continue

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 11

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

Variable according to protocols involved.

(16) Technical approach:

Clinical approach

(17) Progress:

Because of problems with no Data Manager available to help collect the data for the SWOG studies, any further registration of patients was suspended for a year. Currently, all of the SWOG studies are being resubmitted to the Division of Clinical Investigation along with revised consent forms. It is recommended that all previous SWOG collaborative studies be terminated and the new protocol number will reflect the 1983 number.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/111 (3) Status: on-going

(4) Title: Comparative effect of major corticosteroids on lymphocyte blastogenesis and assessment of the corticosteroid sparing effect of troleandomycin.

(5) Start Date: 1981	(6) Est Compl Date:
(7) Principal Investigator: James S. Brown, MD, MAJ, MC	(8) Facility: FAMC Department of Clinical Investigation, FAMC
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: W. Ronald Tipton, MD, COL, MC R. Stephen Whiteaker, CPT, MSC
(11) Key Words: corticosteroids lymphocyte blastogenesis dosage of steroids	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: _____ b. Review Results: _____

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

NA

(15) Study Objective: To determine if various classes of corticosteroids differ in the magnitude of suppression of lymphocyte blastogenesis and to ascertain the effect of Troleandomycin in combination with these corticosteroids on lymphocyte blastogenesis.

(16) Technical Approach: This is an in vitro study using normal lymphocyte populations for blastogenesis as triggered by mitogens and measured by incorporation of titrated thymidine.

(17) Progress: Revelative potency of various corticosteroids have been determined. In addition the effect of troleandomycin has been tested and found not to have any effect in this system.

Publications: none

Presentations:

Brown, J.: The potency of various corticosteroids - inhibition of lymphocyte mitogenesis in humans. Presented: 35th Annual Carl W. Tempel Symposium, FAMC, January 1983.

AD-A140 998 CLINICAL INVESTIGATION PROGRAM ANNUAL PROGRESS REPORT 2/3
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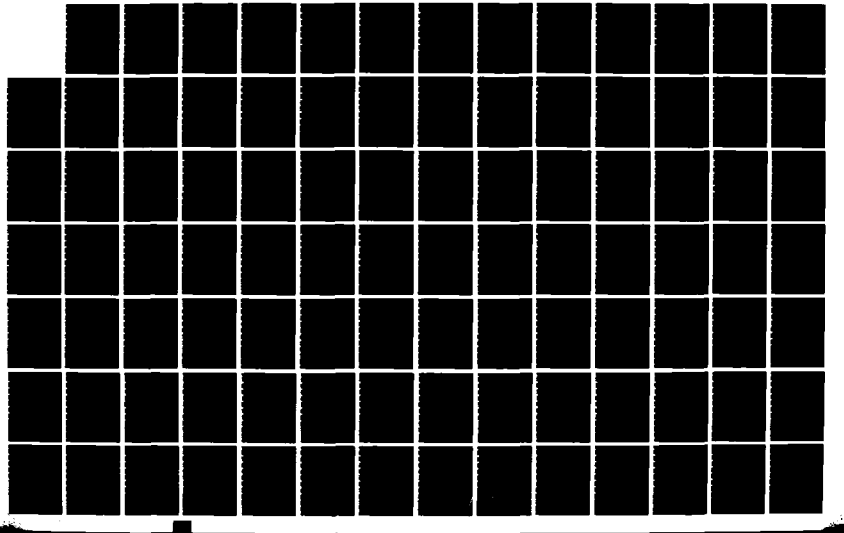

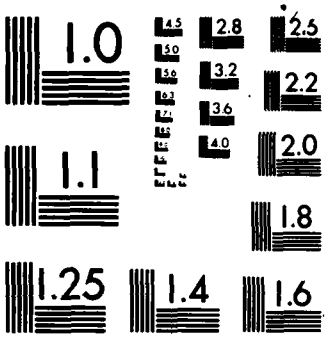

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FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/113 (3) Status: ongoing(Arm 3)

(4) Title: **Aminocaproic Acid for the Control of Hemorrhage in Thrombocytopenic Patients**

(5) Start Date: May 1981	(6) Est Compl Date: undetermined
(7) Principal Investigator: **Arlene J. Zaloznik, M.D.** **Major, MC**	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Hema-Oncology	(10) Assoc Investigators: **Nicholas J. DiBella, M.D.** **Colonel, MC**
(11) Key Words: **Aminocaproic Acid** **Thrombocytopenia**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: 9/83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 4

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **None**

(15) Study Objective: **To determine the efficacy of 1) Prophylactic AMICAR compared with prophylactic platelet transfusions to prevent hemorrhage in thrombocytopenia patients; 2) AMICAR compared with platelet transfusions to control hemorrhage in thrombocytopenic patients.**

(16) Technical Approach: Patients who have a platelet count less than 20,000 were eligible for the study. The treatment arms were as follows: a) Treatment 1 included patients who received no platelet transfusions and who were not actively bleeding. These patients were to be randomized to receive prophylactic AMICAR vs prophylactic platelets. b) Treatment on 2 included patients who received no platelet transfusions and had evidence of severe bleeding. These patients were randomized to receive AMICAR or platelets therapeutically. c) The third treatment arm consisted of patients who were considered refractory to platelet transfusion and who had evidence of severe bleeding that appeared to be refractory to platelets. These patients were to receive therapeutic doses of AMICAR. d) Treatment arm 4 was to have consisted of patients who have had previous platelet transfusions, have a chronic thrombocytopenia and evidence of mild bleeding. These patients were to be given prophylactic AMICAR.

(17) Progress: Because of the difficulties in the design of this study, no patients have been registered for treatment arms 1,2 and 4. However, four patients have received therapeutic doses of AMICAR for bleeding that was considered to be refractory to platelets. The results are as follows: (cont'd)

Patient #1 had CML blast crisis and received 5 gms of AMICAR every 6 hours orally. Bleeding stopped within 12 hours. The second patient had AML and received 28 gms of AMICAR daily for 5 days. This was then tapered over 5-6 days. The bleeding stopped during the first 5 days of therapy. The third patient had ITP secondary to rheumatoid arthitis and was a Jehovah Witness. She was having severe melana, hematochezia, hematuria and epistaxis. AMICAR was initially given 5 gms per hour for one hour and then 1 gm per hour. For four days the bleeding stopped. The fourth patient had ALL and received AMICAR for severe bleeding. The bleeding stopped after less than 24 hours of therapy and the dose was tapered. Because no patients have been registered on treatment arms 1,2 and 4, it has been elected to close those arms and to only keep open the arm for therapeutic AMICAR in patients who have received prior platelet transfusions and are refractory to platelet transfusions in the face of severe uncontrolled bleeding.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/114 (3) Status: Terminated

(4) Title: **Adjuvant Chemotherapy in Resectable Lung Cancer**

(5) Start Date: 1981	(6) Est Compl Date: 1983
(7) Principal Investigator: **Nicholas J. DiBella, M.D.**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Hema-Oncol**	(10) Assoc Investigators: **Arlene J. Zaloznik, M.D.**
(11) Key Words: **Chemotherapy** **Lung Cancer**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 10/82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 5

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **None**

(15) Study Objective: **To improve the disease free and overall survival in patients with non small cell cancer of the lung by giving chemotherapy immediately after surgery.**

(16) Technical Approach: The patients were to receive a five drug regimen consisting of Cytoxan, CCNU, Adriamycin, Vincristine and Cisplatinum.

(17) Progress: No patients have been registered since the last HUC Review. The regimen is associated with significant nausea and vomiting. Recent literature suggested this regimen does not have the anticipated 50% response rate. It has the response rate of 20 to 25%. Because of research with more effective regimens and activation of SWOG protocols, this protocol was terminated.

Publications and Presentations: none

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FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81-115 (3) Status: Ongoing

(4) Title: Comparison of Modalities for Treatment of SLE Nephritis

(5) Start Date: 1982	(6) Est Compl Date: 1984
(7) Principal Investigator: Sterling G West, MD, C, Rheumatology Svc, Maj, MD; Peter A. Andersen, MD AsstC, Rheumatology Svc, MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: Dept of Med/Rheumatology	(10) Assoc Investigators: Robert G. Claypool MD, C, Dept of Med, COL, MC; Jorge L Herrera MD, Internal Medicine, CPT, MC; Mark Nelson, MD, MAJ, MC; Richard C Welton, MD, MAJ, MC
(11) Key Words: SLE, nephritis, steroids, Chlorambucil	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: June 1983 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: two

d. Total Number of Subjects Enrolled to Date: four

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: a. To evaluate the efficacy and side effects of simgle daily dose corticosteroids versus split dose steroid therapy. b. Provide an alternative form of therapy in patients with SLE nephritis that have not responded to conventional steroids and to evaluate the patient's clinical and serologic response to therapy.

(16) Technical Approach: Patients with lupus nephritis are randomly assigned after informed consent to one of two modes of therapy--either split dose or single dose steroids. A variety of serologic parameters are monitored indicating a response to these medications. Patients who do not respond to this therapy are randomized to either receiving high-dose pulse steroids or Chlorambucil again on a random method. Again, serologic parameters are followed to indicate response to this therapy.

(17) Progress: During the past fiscal year there have been no patients at this institution who have fulfilled entry criteria for incorporation into the protocol. Review of the protocol with the other medical centers in the Army revealed, furthermore, that there has been a significant difficulty in additional patients. At the present time there are several potential candidates with SLE and evidence of nephritis who are undergoing evaluation. However, the rigid entry requirements which increase the power of this analysis limits the applicability of the protocol to some patients. It is expected that further evaluation of the status will be made during the next fiscal year.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 81-115

SERVICE Rheumatology DEPARTMENT Medicine

PUBLICATIONS: None

PRESENTATIONS: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/116 (3) Status: Ongoing

(4) Title: **Hypertransfusion in Acute Leukemia**

(5) Start Date: October 1981	(6) Est Compl Date: Unknown
(7) Principal Investigator: **Arlene J. Zaloznik, M.D.**	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Hema-Oncol	(10) Assoc Investigators: **Nicholas J. DiBella, M.D.**
(11) Key Words: **Hypertransfusion Acute Leukemia**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 11/82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 4

d. Total Number of Subjects Enrolled to Date: 19

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

No adverse drug reactions.

(15) Study Objective: **To determine the advantage of maintaining an elevated hematocrit during induction chemotherapy for acute leukemia vs the maintenance of an adequate hematocrit.**

(16) Technical Approach: Patients undergoing induction chemotherapy for acute leukemia are randomized into receiving packed red blood cells to maintain a hematocrit greater than 45% during induction vs those who receive packed red blood cells only if clinically indicated.

(17) Progress: To date there has been a trend in the hypertransfused group of the platelet count not dropping as low as the nontransfused group. The numbers in each arm are very small and no conclusion can be reached at this time.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/117 (3) Status: Ongoing

(4) Title:

The Role of Calcitonin in Osteoporosis

(5) Start Date: November 1982	(6) Est Compl Date: December 1984
(7) Principal Investigator: Michael T. McDermott, MD, MAJ,MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Endocrine	(10) Assoc Investigators: Fred D. Hofeldt, MD, COL, MC Gerald S. Kidd, MD, LTC, MC Peter Blue, MD, LTC, MC Nasser Ghaed, MD, COL, MC
(11) Key Words: osteoporosis calcitonin deficiency bone density	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Nov 82 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 60

d. Total Number of Subjects Enrolled to Date: 60

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". 0

(15) Study Objective:

The objectives of this study are to further investigate the role of calcitonin, or its deficiency, in the development of osteoporosis and to determine if thyroidectomized patients, who are calcitonin deficient, are at increased risk of developing osteoporosis.

(16) Technical Approach:

Four groups of individiuals are studied with bone densitometry using the Norland apparatus. A control group of normals and a thyroid suppressed group of patients compared with a group of thyroidectomized patients who are therefore calcitonin deficient.

(17) Progress:

Sixty patients have had serial bone density measurements on 2 occasions; 10 patients have also had a third bone density measurement. The remainder of the patients are currently being scheduled for their third measurement. Pentagastrin infusions have not yet been done because of difficulty with the calcitonin radioimmunoassay. Data from the first bone density measurements has already been published.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 81/117

SERVICE Endocrine DEPARTMENT Medicine

(1) McDermott M, Kidd G, Blue P, et al.: Bone mineral content in totally thyroidectomized patients: possible effect of calcitonin deficiency. (Abstract, 64th Meeting of the Endocrine Society, San Francisco, California, June 1982). (Abst.)

(2) McDermott, M.T., Kidd, G.S., Blue, P., Ghaed, V., and Hofeldt, F.D.: Reduced Bone Mineral Content in Totally Thyroidectomized Patients: Possible Effect of Calcitonin Deficiency. J. Clin. Endocrinol. Metab. 56:936-939, 1983.

PRESENTATIONS:

(1) McDermott, M.T.; Bone Mineral Content in Totally Thyroidectomized Patients. Presented: Uniformed Services Society of Endocrinology, San Francisco, CA, June 1982.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/118 (3) Status: Ongoing

(4) Title:

Hypothalamic Pituitary Gonadal Function in Hypothyroidism

(5) Start Date: 3 September 1981	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Michael T. McDermott, MD, MAJ,MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Endocrine	(10) Assoc Investigators: Gerald S. Kidd, MD, LTC, MC Fred D. Hofeldt, MD, COL, MC
(11) Key Words: hypothyroidism HPG axis gonadal function	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Nov 82 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective:

The objectives of this protocol are to define more clearly the mechanisms of gonadal dysfunction occurring in hypothyroidism and to see if these abnormalities resolve after treatment of the hypothyroid state.

(16) Technical Approach:

A prospective study to assess in a pair manner results of alterations in HPG axis as a consequence of hypothyroidism when evaluated with a GnRH infusion and TRH testing, clinical stimulation and HCG testing in males and females.

(17) Progress:

No patients have been studied to date because GnRH was not made clinically available until June 1983.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/119 (3) Status: Ongoing

(4) Title:
The Effect of Thyrotropin Releasing Hormone on Gonadotropin Releasing Hormone Stimulated Gonadotropin Secretion

(5) Start Date: March 1983 (6) Est Comp Date: March 1984

(7) Principal Investigator:
Michael T. McDermott, MD, MAJ, MC

(8) Facility: FAMC

(9) Dept/Svc: Medicine/Endocrine

(10) Assoc Investigators:
Gerald S. Kidd, MD, LTC, MC
Fred D. Hofeldt, MD, COL, MC

(11) Key Words:
gonadotropin releasing hormone
thyrotropin rleasing hormone

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Nov 82 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 8
d. Total Number of Subjects Enrolled to Date: 8
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:
In order to gain a better insight into the mechanism of gonadal dysfunction in hypothyroidism, the objective of this protocol is to study the effect of a thyrotropin releasing hormone (TRH) infusion on basal and gonadotropin releasing hormone (GnRH) stimulated gonadotropins in normal subjects.

(16) Technical Approach:
Ten normal males will be studied with either a normal saline infusion or a TRH infusion. During these infusions, GnRH will be given as a bolus with measurement of appropriate hormones to determine interaction between releasing hormones.

(17) Progress:
Eight subjects have undergone one of the infusions; 2 of these have had both infusions. No results are available as all specimens have been frozen to run in one batch.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81-121-N (3) Status: Ongoing

(4) Title: IgA Nephropathy: A Prospective Evaluation

(5) Start Date: Dec. 81

(6) Est Compl Date: Dec. 84

(7) Principal Investigator:
JAMES A. HASBARGEN, MD
MAJ, MC
Chief, Nephrology Service

(8) Facility: FAMC

(9) Dept/Svc: Medicine/Nephrology

(10) Assoc Investigators:
LINDA S. BARTRAM, MD
MAJ, MC
Asst. C, Nephrology Service

(11) Key Words: IgA nephropathy, Berger's Disease, prospective evaluation

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Dec 82 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 8

d. Total Number of Subjects Enrolled to Date: 14

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective: To determine pathologic and clinical pathologic criteria for the diagnosis of IgA nephropathy, prognosis of patients with such a diagnosis, suitability for continued military service. The extent of the evaluation and degree of follow up required for such patients, and the sensitivity and specificity of various non-invasive diagnostic techniques which potentially could obviate the necessity for renal biopsy.

(16) Technical Approach: Patients who meet patient selection criteria established in protocol enrolled and subjected to the following: skin biopsy, serum IgA level, IgA coated peripheral lymphocyte analysis, and HLA typing. In addition, a kidney biopsy is closely scrutinized and the patient examined reference symptoms accompanying their disease and other associated symptomatology. Follow up is conducted indefinitely at six month intervals and if patient develops a marked decrease in renal function, kidney biopsy is repeated. Repeat skin biopsy is accomplished only for episodes of gross hematuria.

(17) Progress: Total of 14 patients have been enrolled including 8 during the past year. The study represents a collaborative effort utilizing WRAMC, DDEAMC, and recently Brooke AMC. Thus far approximately 50 patients have been enrolled totaling the study amongst the centers, and abstract and presentation based on data gained from this protocol as well as the hematuria protocol are noted in the accompanying paper. Due to failure of laboratory freezer, the IgA coated lymphocyte portion of this study has suffered a major setback. It is anticipated that several more papers will ensue over the accompanying several years. Follow up of the patients in the protocol will be indefinite.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81-122/N (81-3) (3) Status: Ongoing

(4) Title:
Utility of Furosemide in Early Oliguric or Non-oliguric Renal Failure

(5) Start Date: **Feb. 82**	(6) Est Compl Date: **Feb. 84**
(7) Principal Investigator: **JAMES A. HASBARGEN, MD** **MAJ, MC** **LINDA S. BARTRAM, MD** **MAJ, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Nephrology**	(10) Assoc Investigators: **JACK MOORE, JR., MAJ, M.C.** **Chief, Nephrology Service, WRAMC** **ROBERT W. SCHRIER, MD** **Chief, Department of Medicine** **Univ. of Colo. Health Sciences Center**
(11) Key Words: **Furosemide, oliguric, renal failure**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **Feb 83** b. Review Results: **Ongoing**

c. Number of Subjects Enrolled During Reporting Period: **3**

d. Total Number of Subjects Enrolled to Date: **7**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **None**

(15) Study Objective: **To prospectively determine if Furosemide is capable of producing diuresis and thereby attentuating the severity of acute renal failure when administered early in the course of oliguria. An additional purpose is to determine if non-oliguric acute renal failure patients would benefit from Furosemide therapy; to determine if their need for dialysis could be decreased.**

(16) **Technical Approach: Patients accepted for the protocol per parameters listed therein are randomized into two therapeutic trial groups, Furosemide or Saline. Patients are then given specific doses by weight of Furosemide or specific amounts of Saline and their responses to same is monitored immediately and over ensuing days.**

(17) **Progress: This study represents a collaborative study between the Renal Division, Univ. of Colorado Health Sciences Center and Departments of Nephrology, WRAMC, William Beaumont AMC, and FAMC. Fitzsimons has provided a total of 7 patients for this study group since approval of the protocol. It is too early to determine utility of Furosemide and it is anticipated a relatively large number of patients will need to be enrolled in this study to stratify the multiple variables encountered.**

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/123 (3) Status: Ongoing

(4) Title:

Primary Renal Hematuria: A Prospective Evaluation

(5) Start Date: Feb. 82	(6) Est Compl Date: Feb. 85
(7) Principal Investigator: JAMES A. HASBARGEN, MD MAJ, MC Chief, Nephrology Service	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Nephrology	(10) Assoc Investigators: LINDA S. BARTRAM, MD MAJ, MC Asst. C, Nephrology Service
(11) Key Words: Primary renal hematuria, prospective evaluation	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 6

d. Total Number of Subjects Enrolled to Date: 10

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective: To determine the etiology and significance of hematuria microscopic and macroscopic, as well as prognosis in patients who have neither personal or family history of renal disease, nor evidence of systemic disease or extra renal causes of hematuria.

(16) Technical Approach: Patients who meet established criteria contained within the protocol are evaluated with skin biopsy, serum IgA levels and IgA coated peripheral lymphocytes. Most patients then undergo renal biopsy and/or renal arteriography (dependent upon age). HLA typing is accomplished on all patients and patients are followed every six months for an indefinite period of time regardless of renal biopsy findings to determine the course of their disease.

(17) Progress: This study represents a collaborative study with Walter Reed AMC, Eisenhower AMC, possibility of Beaumont AMC, and Brooke AMC participating in addition to FAMC. It is hoped that over a three year period at least 50 individuals will be enrolled in the protocol. Fitzsimons has thus far contributed a total of 10 patients with a goal of 50 patients which can be reached over a three year period.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 81/123

SERVICE Nephrology DEPARTMENT Medicine

1. Copley, J.B., and Hasbargen, J.A. "Primary" Hematuria: A Prospective Evaluation (Abstract). Kidney International. (In Press)

PRESENTATIONS: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/124 (3) Status: Completed

(4) Title: **Intra-Coronary Streptokinase in Evolving Myocardial Infarction**

(5) Start Date: **December 1981**	(6) Est Compl Date: 1983
(7) Principal Investigator: **Kenneth E. Trnka, M.D.,MAJ,MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Cardiology**	(10) Assoc Investigators: **Richard C. Davis, Jr., MD, PhD,LTC,MC** **Carlos A. Mendoza, MD, MAJ, MC**
(11) Key Words: **intra-coronary streptokinase** **acute myocardial infarction**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Completed

c. Number of Subjects Enrolled During Reporting Period: 23

d. Total Number of Subjects Enrolled to Date: 23

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To assess the efficiency and safety of intra-coronary streptokinase infusions in patients with acute myocardial infarction.**

(16) Technical Approach: After initial evaluation of each patient who gives informed consent to the study protocol, the following procedures are performed: complete medical history, complete physical exam, chest x-ray, EKG, CBC chemistry profile, myocardial isoenzymes, PT, PTT thrombin time, fibrinogen level, UA. Right and left heart catheterization is then performed to include hemodynamic parameters, left heart ventriculogram and selective coronary angiography. AFter locating a totally obstructed coronary artery, lc NTG is given followed by lc streptokinase consisting of a 10,000 unit bolus and 2500 units/minute for a total of 60 minutes. Repeat LV ventriculogram is performed with repeat hemodynamic measurements. The patient is then taken to the CCU routine post MI treatment.

(17) Progress: Since initiation of protocol in December 1981, a total of 23 patients have been entered under the protocol. Analysis has shown a trend toward improvement in LV function. Using a total dose of 160,000 units of Streptokinase administered intra-coronary showed a significant drop in fibrinogen levels and prolongation of the thrombin time. This data was presented at the Army Cardiology Meeting in May 1982 and May 1983. No technical problems

CONTINUATION SHEET for Annual Progress Report 1983 Proto No 81/124

DEPARTMENT Medicine SERVICE Cardiology

(17) Progress: continued

have arisen with the procedure. Two patients died who were entered in the protocol, one 12 hours after the procedure with an extensive anterior MI and the second patient at 72 hours with an extensive anterolateral MI. Both patients are felt to have died from the extensive myocardial infarction and not from the procedure.

Publications: none

Presentations:

1. Trnka, K.: Intra-Coronary Streptokinase in Acute Myocardial Infarction at Fitzsimons Army Medical Center. Presented: Association of Army Cardiology Meeting, May 1982.

2. Trnka, K.: Intra-Coronary Streptokinase in Acute Myocardial Infarction at Fitzsimons Army Medical Center. Presented: Association of Army Cardiology Meeting, May 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#:81-125 (3) Status: Ongoing

(4) Title:
Flexible Fiberoptic Esophageal Vein Sclerosis: A multi-Center Study.

(5) Start Date: Sep 1981

(6) Est Compl Date: June 1984

(7) Principal Investigator:
at FAMC: Thomas G. Brewer, M.D.
Major, MC

(8) Facility: FAMC
(Participating facilities - University of Colorado Medical Center, Denver Veterans Hospital, and Denver General Hospital)

(9) Dept/Svc: Medicine/Gastroenterology

(10) Assoc Investigators:
at FAMC: Michael T. Keegan, M.D., MAJ, MC

(11) Key Words:
esophageal varices
fiberoptic vein sclerosis

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: Five

d. Total Number of Subjects Enrolled to Date: Thirty-seven

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e": None

(15) Study Objective:
To determine the therapeutic efficacy and safety of flexible fiberoptic vein sclerosis in preventing recurrent bleeding in patients with recent hemorrhage from esophageal varices.

(16) **Technical Approach: We have not deviated from the technical approach to sclerosing esophageal varices as outlined in the protocol. Endoscopic sclerotherapy has been accomplished in all five patients entered in the study with a maximum number of sclerotherapies accomplished being six in one study patient. Olympus single channeled or double channeled panendoscopes have been used with Olympus and Medi Teck injectors which contain a retractable 23-gauge needles with three percent Sotradecol (Sodium Tetradecyl sulfate - TSS)**

(17) **Progress: Of the current total of 37 patients entered from all centers to the study, we have entered five patients - all of whom have been randomized to the sclerosis group. Endoscopic esophageal vein sclerosis has been carried out in each patient's case with complete ablation of varices and without occurance of any major complications. Transient substernal chest pain with occasional dysphagia lasting 24 to 48 hours has been noted in four of the cases at some point during the sclerotherapy regimen but has resolved in every case. All patients are currently alive and continuing clinical followup with regular (q 3-4 months) followup in the family GI Clinic.**

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/100-N (3) Status: Ongoing

(4) Title:
Combined Prednisone And Cyclophosphamide Therapy Coupled With Plasmapheresis In The Treatment of Anti-glomerular Basement Membrane (Anti-GBM) Antibody Induced Disease

(5) Start Date: Mar. 82 (6) Est Compl Date: Mar. 85

(7) Principal Investigator:
JAMES A. HASBARGEN, MD
MAJ, M.C.
Chief, Nephrology Service

(8) Facility: FAMC

(9) Dept/Svc: Medicine/Nephrology

(10) Assoc Investigators:
LINDA S. BARTRAM, MD
MAJ, M.C.
Asst. Chief, Nephrology Service

(11) Key Words:
Prednisone, Cyclophosphamide, Plasmapheresis, anti-GBM antibody induced disease

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 0
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective: To determine if Prednisone and Cyclophosphamide alone or in combination with plasmapheresis is efficacious in lowering circulating anti-GBM bi-levels and thereby affecting the clinical course of anti-GBM induced nephritis. In addition, it is desirable to learn if treatment with Prednisone and Cytotoxin with or without plasmapheresis has a role in the prevention of, or is therapeutic for pulmonary manifestations of anti-GBM induced disease.

(16) Technical Approach: Patients with anti-GBM antibody disease are randomized into one to two treatment groups consisting of Prednisone and Cyclophosphamide alone or in combination with plasmapheresis. Patients are monitored with history, physical, hematologic and chemistry monitoring to include renal function parameters as well as anti-GBM antibody titers. Criteria for withdrawl from the study as well as analysis of the study are indicated within the protocol.

(17) Progress: Anti-GBM Ab mediated pulmonary-renal disease is a rare entity which accounts for the collaborative nature of the study between FAMC, WRAMC, National Naval Medical Center and NIH. Thus far since inception of protocol, FAMC has not had any patients who met entry into the protocol standards. It is anticipated over the next several years that we will be able to contribute one to two patients to the protocol.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/101-N (3) Status: Ongoing
(4) Title: (83-4)

Steroid And Immunosuppressive Drug Therapy In Idiopathic Crescentic Glomerulonephritis

(5) Start Date: Apr. 82	(6) Est Compl Date: Apr. 85
(7) Principal Investigator: JAMES A. HASBARGEN, MD MAJ, MC LINDA S. BARTRAM, MD MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Nephrology	(10) Assoc Investigators: JAMES E. BALOW, M.D. and HOWARD A. AUSTIN, MD National Institutes of Health Bethesda, Maryland
(11) Key Words: steroid, immunosuppressive drug, idiopathic crescentic glomerulonephritis, rapidly progressive glomerulonephritis	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 1
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective: To compare the efficacy of intravenous methylprednisolong, vs. intravenous cyclophosphamide in the treatment of idiopathic crescentic glomerulonephritis. Comparison will be made of the number of favorable outcomes of renal function and renal pathology as well as drug related toxicities manifested by each treatment group at the end of the sixth study month.

(16) Technical Approach: Patients with idiopathic crescentic glomerulonephritis are randomized into one of two study groups to receive either monthly intravenous pulse methylprednisolong for six months or monthly intravenous pulse cyclophosphamide for six months. All patients are treated with oral prednisolone in addition. Effects of therapy are monitored with frequent histories and physical examinations as well as hematologic, urinalysis and renal function monitoring. At the end of six months a second renal biopsy is accomplished to determine the effects of the above mentioned therapy. Criteria for withdrawal from the study, retreatment of patients who exacerbate their course of glomerulonephritis, and analysis of the study are as indicated in the study protocol.

(17) Progress: Idiopathic crescentic glomerulonephritis is a rare disease, and it is for this reason this protocol represents a collaborative effort between FAMC, WRAMC, and NIH. Since the inception of the protocol one patient at FAMC has been enrolled and was randomized to the pulse methylprednisolone group.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/102 (3) Status: **Terminated**

(4) Title: **Laboratory Evidence of Hypercoagulability as an Indicator for Early Graft Closure**

(5) Start Date: **1982**	(6) Est Compl Date: **Terminated**
(7) Principal Investigator: **Richard C. Davis, Jr., MD** **LTC, MC** **Troy H. Williams, MD** **COL, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Cardiology**	(10) Assoc Investigators:
(11) Key Words: **hypercoagulability** **coronary artery bypass graft** **graft closure**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **4/83** b. Review Results: **terminated**

c. Number of Subjects Enrolled During Reporting Period: **NA**

d. Total Number of Subjects Enrolled to Date: **NA**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To determine if there is a group of patients with laboratory evidence of hypercoagulability that have an increased risk for early closure of coronary artery bypass grafts. Also, to assess whether long term treatment with oral anticoagulants prevents graft closure in this group of patients.**

(16) Technical Approach: Laboratory assessment of hypercoagulability prior to coronary artery bypass graft, randomization of patients with decreased AT III levels to treatment with coumadin vs no anticoagulation and evaluation of graft patency by CAT scan and cardiac catheterization.

(17) Progress: This protocol has been terminated due to the principal investigator leaving FAMC.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/103 (3) Status: Ongoing

(4) Title:
A Survey of Lymphocyte Subpopulations in Patients with Malignancies

(5) Start Date: 15 Nov 82	(6) Est Compl Date: 30 Sep 84
(7) Principal Investigator: N.J. DiBella, M.D., COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Hem/Onc, Dept of Med	(10) Assoc Investigators: R. Stephen Whiteaker, Ph.D., CPT, MSC Jeneen K. Nelson, GS-9, DAC
(11) Key Words: Lymphocytes, Cancer	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: May 1983 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 34
d. Total Number of Subjects Enrolled to Date: 34
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective:
To determine if there are abnormalities of peripheral blood lymphocyte subpopulations in patients with malignancies.

(16) Technical Approach:
Blood samples from cancer patients will be surveyed to determine the composition of lymphocytes.

(17) Progress:
To date, 24 patients and 10 normal controls have been studied. Results have not been analyzed as yet.

Publications and Presentations: None.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/104 (3) Status: Ongoing

(4) Title:
The Effect of Tamoxifen on Gynecomastia

(5) Start Date: 30 Sep 82	(6) Est Compl Date: March 1985
(7) Principal Investigator: Michael T. McDermott, MD, MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Endocrine	(10) Assoc Investigators: Fred D. Hofeldt, MD, COL, MC Gerald S. Kidd, MD, LTC, MC
(11) Key Words: Tamoxifen gynecomastia therapy	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 0
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

The objective of this protocol is to evaluate, in a double-blind placebo controlled prospective trial, the effect of Tamoxifen on males with gynecomastia and to characterize any co-existent hormonal changes.

(16) Technical Approach:

A randomized, double-blind placebo controlled study of the effects of Tamoxifen therapy on idiopathic gynecomastia will be performed. Breast size will be assessed by photographs, palpation and measurement of tissue.

(17) Progress:

The one subject enrolled so far is still under investigation and because the study is double-blind, no comments can be made as of yet.

Publications and Presentations; none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/106 (3) Status: Ongoing

(4) Title: Clinical Usage of High Frequency Jet Ventilation

(5) Start Date: June 1981	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Gary R. Ripple, MD CPT, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Pulmonary Dis	(10) Assoc Investigators: Michael E. Perry, LTC, MC Jim Gilbert, MAJ, MC Mike Schlachter, CPT, MC William Strampel, MAJ, MC
(11) Key Words: high frequency jet ventilation airway pressure arterial blood gases	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: June 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 2

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: High frequency jet ventilation (HFJV) will be used on certain patients as outlined in the protocol who have not responded to conventional ventilation. The investigators will monitor airway pressure and arterial blood gases to determine HFJV usefulness and clinical applicability.

(16) Technical Approach: Utilizing a standard ventilator as a "back-up" means of ventilation, the HFJV jet is insorted into the endotrachial tube adaptor and the rate and 1:E ratio of the HFJV generator is adjusted to determine adequacy of ventilation. The investigators by monitoring air flow, airway pressure and clinical response may then determine optimal HFJV settings and modification which are to date unpublished.

(17) Progress: Since approval, human usage has not been utilized due to unavailable subjects meeting protocol criteria. We have determined through animal and mechanical models that high frequency ventilation is better attained with specific injections and specific settings.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/107 (3) Status: Ongoing

(4) Title: **Interstitial Lung Disease Protocol**

(5) Start Date: June 1981	(6) Est Compl Date: Indefinite
(7) Principal Investigator: **Gary R. Ripple, MD** **CPT, MC**	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Pulmonary	(10) Assoc Investigators: **Michael E. Perry, LTC, MC** **Jimmy Gilbert, MAJ, MC** **William Strampel, MAJ, MC** **Michael Schlachter, CPT, MC**
(11) Key Words: **corticosteriod** **gallium seitigraphy** **interstitial lung disease** **bronchoalveolar lavage** **open lung biopsy**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: June 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 4

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **Through the correllation of gallium scitigraphy, bronchoalveolar lavage, open lung biopsy and pulmonary function testing, the investigators are striving to determine the role of immune complexes and neutrophils in the pathogenesis and treatment (with corticosteroids) of interstitial lung disease.**

(16) Technical Approach: Consenting patients with interstitial lung disease (ILD) are evaluated initially by gallium scitigraphy, bronchoalveolar lavage, pulmonary function studies and open lung biopsy. Those patients having ILD of undetermined etiology on biopsy are re-evaluated by gallium scanning, bronchoalveolar lavage, and pulmonary function studies 6 weeks after biopsy (before steroids) and after 6 weeks of steroids. The purpose is to correlate disease activity with diagnostic procedures.

(17) Progress: No new patients have been entered into this project due to inability to provided appropriate cases.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/109 (3) Status: Ongoing

(4) Title: Correlation of Birth Weight with Maternal Hemoglobin S Concentration: A Retrospective Study

(5) Start Date: 1982	(6) Est Compl Date: Indefinite
(7) Principal Investigator: John R. Hess, MD Major, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Hema/Oncology	(10) Assoc Investigators: J. Benjamin Hall, MAJ, MC Lynn G. Stansbury, MD, DAC Nicholas J. DiBella, COL, MC Jay M. Hill, COL, MC
(11) Key Words: hemoglobin S sickle cell trait	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: a) To reaccess the association of maternal sickle cell trait and low infant birth weight. b) To correlate infant birth weight with maternal hemoglobin S concentration.

(16) Technical Approach: The relation of infants birth weight to their mothers' levels of Hb S and duration of gestation will be accessed with the techniques of linear and multiple linear regression or analysis of variance and covariance. Differences will be judged significant at the .05 level.

(17) Progress: Since November 1982, statistics from 59 mother/child records have been reviewed. The numbers are too small and the study will need to continue for 3 to 4 years for additional comparative statistics.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/110 (3) Status: on-going

(4) Title: An investigation of immunologic reaction to human serum albumin.

(5) Start Date: 1982	(6) Est Compl Date: 1984
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC Allergy-Immunology Service; William Beaumcnt Army Medical Center Allergy-Immunology Service; Brooke Army Medical Center Allergy-Immunology Service
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: James S. Brown, MD, MAJ, MC Stanislaus Ting. MD, MAJ, MC Daniel Ramirez, MD, LTC, MC
(11) Key Words: human serum albumin immunologic reaction	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: between 70-150

d. Total Number of Subjects Enrolled to Date: same

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

none

(15) Study Objective:

To determine whether allergy patients receiving injections of allergy extracts containing human serum albumin develop evidence of IgE or IgG antibodies directed towards human serum albumin.

(16) Technical Approach: Patients at the three Army medical centers who have been receiving injections of allergy extract containing 0.03% human serum albumin will be asked to participate. Patients will be skin tested with a diluent containing the same concentration of albumin in an attempt to demonstrate IgE mediated sensitivity. Blood will be drawn from any patients who have positive immediate skin tests or every tenth patient to have in vitro determination of specific IgG and IgE antibodies.

(17) Progress: About 70 patients have been skin tested at Fitzsimons and a smaller number at the other two allergy clinics. No in vitro tests have been performed.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/111 D (3) Status: on-going

(4) Title: Investigation of the efficacy and side effects of oral and inhaled beta adrenergic bronchodilators in patients on optimal theophylline therapy.

(5) Start Date: 1983	(6) Est Compl Date: 1984
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC Allergy-Immunology Clinic
(9) Dept/Svc: Medicine/Allergy	(10) Assoc Investigators: Kenneth Kray, MD, MAJ, MC Mark Vandewalker, MD, MAJ MC
(11) Key Words: adrenergic bronchodilator subsensitivity	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 10

d. Total Number of Subjects Enrolled to Date: 10

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

none

(15) Study Objective: To determine whether the addition of oral or inhaled beta adrenergic medication to treatment with optimal doses of theophylline significantly improves the treatment of patients with bronchial asthma.

(16) Technical Approach: Patients will be placed on oral theophylline and either oral or inhaled terbutaline. They will then undergo a double-blind crossover of terbutaline and placebo. During this time pulmonary function, asthma symptoms and requirement for asthma medication will be monitored.

(17) Progress: Approximately 8 patients have completed the oral phase of the study. None have entered the inhaled phase. The code has not been broken, and the results are unknown.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/112 (3) Status: on-going

(4) Title: The use of the modified RAST in determining initial immunotherapy doses.

(5) Start Date: 1982	(6) Est Compl Date: 1984
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC Allergy-Immunology Clinic
(9) Dept/Svc: Medicine/Allergy	(10) Assoc Investigators: David Moyer, CDR, MC, USN Robert Bowen, CPT, MC
(11) Key Words: immunotherapy modified RAST	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 6

d. Total Number of Subjects Enrolled to Date: 6

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

none

(15) Study Objective: To determine whether use of the modified RAST will allow initiation of allergy immunotherapy with more concentrated extracts than would normally be employed, and whether the immunologic response of the first few months of immunotherapy differs from that achieved with conventional doses.

(16) Technical Approach: The patients placed on immunotherapy with a clear cut seasonal allergic history will have modified RAST performed to that allergen and then randomly will begin allergy immunotherapy with either the dose indicated by the modified RAST or conventional dosage beginning at 1:10,000 weight by volume. Immunological parameters, progress with immunotherapy and reactions to immunotherapy will be monitored during a 6 month period.

(17) Progress: Only a few patients have entered the protocol. No results are available.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/113 (3) Status: on-going

(4) Title: The effect of inhaled corticosteroids on the development of beta adrenergic subsensitivity

(5) Start Date: not started	(6) Est Compl Date: indefinite
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC Allergy-Immunology Clinic
(9) Dept/Svc: Medicine/Allergy	(10) Assoc Investigators:
(11) Key Words: Corticosteroids beta adrenergic subsensitivity	R.W. Weber, MD, COL, MC
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

none

(15) Study Objective: To determine whether the administration of inhaled corticosteroids in conjunction with inhaled beta adrenergic bronchodilators prevents the development of subsensitivity to the bronchodilator action of the beta agonists.

(16) Technical Approach: Patients will be tested for their response to inhaled terbutaline before and following a 3-week course of inhaled terbutaline or placebo administered in a double-blind, random crossover design.

(17) Progress: This study has been postponed until completion of the ketotifen beta adrenergic subsensitivity study.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/114 (3) Status: ONGOING

(4) Title: Growth of Basal Cell Carcinoma Cells in Defined Medium and Study of their Growth and Immunological Characteristics.

(5) Start Date: November 82	(6) Est Compl Date: October 84
(7) Principal Investigator: Ronald E. Grimwood, M.D. Maj(P), MC	(8) Facility: FAMC DCI
(9) Dept/Svc: Dermatology/Dept of Med	(10) Assoc Investigators: J. Clark Huff, M.D. John Harbell, Cpt, PHD, MSC Richard AF Clark, M.D.
(11) Key Words: Basal Cell Carcinoma Defined Culture Media for Keratinocytes.	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: Growth and study of Basal Cell Carcinoma Cells in Culture.

16. Technical Approach: The approach to culturing of basal cells has been the use of the media formulated by Dr. Ham's Lab at the University of Colorado in Boulder termed M.C.D.B. 153. This media is very effective for the growth of normal keratinocytes and therefore its use in growing basal cells was assumed to be the best approach. Technically, we have finally worked out various problems, to include; acquisition of fresh media from Dr. Ham's Lab, a new CO_2 regulated incubator, whole bovine pituitary extract source, and finally, the formulation of the various supplements. To date we have not been able to initiate growth of basal cell tumors but have been successful in the growth of normal keratinocytes. We will now proceed with basal cell cultures to include fibronectin coated plates which will give an adherence matrix for the basal cells that may be a requirement for their growth. (Refer to referenced Presentations/Publications, (page 3).)

17. Progress: I have indicated progress in the description of our technical approach and would like to add that we are concurrently explanting human foreskin tissue as well as basal cell tissue on athymic nude mice as an additional project which appears to be successful on a preliminary basis. We will be evaluating the explanted tissue in the month Of October 1984 and characterizing to explanted tissue with various tissue antibodies directed at basement membrane antigens.

Publications for FY 83 Annual Progress Report Proto No. 82/114

1. Grimwood, R.E., Huff, J.C., Harbell, J.W. and Clark, R.A.F.: Fibronectin in Basal Cell Epithelioma: Sources and Significances. Accepted for publication in Investi Derma 1983.

Presentations:

1. Grimwood, R.E., Huff, J.C., Harbell, J.W. and Clark, R.A.F.: The Source of Fibronectin in Basal Cell Epithelioma. Presented: Proceedings of the Society for Investigative Dermatology, Carmel, CA, April 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/115 (3) Status: Ongoing

(4) Title: **Serial Two Dimensional Echocardiographic Evaluation of Acute Anterior Myocardial Infarctions for Detection of Left Ventricular Thrombi**

(5) Start Date: **November 1982**	(6) Est Compl Date: **July 1984**
(7) Principal Investigator: **E.J. Laughlin**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Cardiology**	(10) Assoc Investigators: **Mendoza, Carlos, A., M.D., MAJ, MC Davis, Richard C., M.D., LTC, MSC Thomas, Harry M., M.D., COL, MC Hopper, David C., MSG, USA**
(11) Key Words: **2-D echocardiography Left ventricular thrombus**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA
c. Number of Subjects Enrolled During Reporting Period: NA
d. Total Number of Subjects Enrolled to Date: NA
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **Assess incidence of mural thrombi in patients with acute anterior MI.**

(16) Technical Approach: Patients admitted to CCU with acute anterion MI receive serial 2-D echocardiograms over 10-day period.

(17) Progress: Since transfer of principal investigator, Dr. Laughlin, to Tripler AMC, this study has been placed on hold status until availability of another principal investigator to continue the study.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#:82/116 (3) Status: Ongoing

(4) Title: **Assessment of Regional Wall Motion Abnormalities by Radionuclide Angiography; Effect of Sublingual Introglycerin**

(5) Start Date: 1982	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Kenneth E. Trnka, MD MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Cardiology	(10) Assoc Investigators: Troy H. Williams, MD, COL, MC John Jackson, MD, MAJ, MC Peter W. Blue, MD, LTC, MC
(11) Key Words: RVG nitroglycerin introglycerin angiography	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". 0

(15) Study Objective: **This study is designed to analyze the sensitivity and and specificity of radionuclide angiography in assessing segmental wall motion abnormalties after nitroglycerin administration and after coronary artery bypass grafting.**

(16) Technical Approach: Forty patients with stable angina and atherosclerotic heart disease involving one or more vessels with a wall motion abnormality documented by cardiac catheterization within 6 months prior to gated radionuclide ventriculography (RVG) will be studied. Patients will be between the ages of 30 and 65. No study candidate will have had a prior transmural myocardial infarction or have aortic or mitral valvular heart disease. Those patients undergoing coronary artery bypass grafting will have repeat RVG approximately 10 days after surgery. All patients will be tested in a basal fasting state and will have all nitroglycerin preparations withheld for 24 hours prior to the study.

(17) Progress: No accountable progress has been made on this study due to technical problems, finding suitable patients and arranging suitable time with physicians and technicians.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCI 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/100 (3) Status: ongoing

(4) Title:

A survey of bacterial virulence factors in E. coli.

(5) Start Date: February, 1983	(6) Est Compl Date: February, 1984
(7) Principal Investigator: Steven M. Opal, MD, MAJ, MC Alan S. Cross, MD, LTC, MC Peter Gemski, PhD	(8) Facility: FAMC
(9) Dept/Svc: Dep of Med/Infect Dis	(10) Assoc Investigators: Pari L. Morse, GS-9 Paul G. Englekirk, LTC, MSC
(11) Key Words: Virulence Factors in E. coli	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: none

d. Total Number of Subjects Enrolled to Date: none

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective:

The objective of this study is to determine the frequency of potential virulence factors in bacteremic E. coli compared with their frequency in urinary and stool isolates.

(16) Technical Approach:

The technicial approach has been to collect stool, urinary and bacteremic E. coli isolates and to examine potential virulence factors including alpha hemolysin, K phenotype, O serotype, iron chelation, surface piliation measured by mannose sensitive and resistant hemagglutination, colicin production, and plasmid number and composition.

(17) Progress:

Progress on this protocol has led to it's near completion. Over 100 blood isolates, 50 urinary and 50 stool isolates have been studied. The analysis is nearly complete. The only remaining experiments which have not yet been completed are the iron uptake experiments. The data should be complete within the next few weeks, at which time the statistical analysis will be performed and the manuscript will be written. The project was begun in Fiscal year 83 and will be complete in 1984.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/101 (3) Status: ongoing

(4) Title: **Investigation into the genetics of exfoliatin B production from clinical isolates of Staphylococcus aureus which produced staphylococcal scaled skin syndrome.**

(5) Start Date: **February 1983**	(6) Est Compl Date: **June 1984**
(7) Principal Investigator: **Steven M. Opal, MD, MAJ, MC** **Alan S. Cross, MD, LTC, MC,** **WRAIR, Washington, DC**	(8) Facility: FAMC
(9) Dept/Svc: **DOM/Inf. Disease**	(10) Assoc Investigators: **Ms. Pari L. Morse GS-9, Microbiologist** **Paul G. Engelkirk, LTC, MSC, PhD**
(11) Key Words: **Staphyloccal scalded skin syndrome, Exfoliatin B, Staphylococcal plasmids.**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: none

d. Total Number of Subjects Enrolled to Date: none

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None.

(15) Study Objective:

The objective of the study is to isolate plasmid DNA responsible for the production of exfoliatin B and compare the restriction endonuclease digestion pattern of this isolate with a reference strain. A determination of any common polynucleatide fragments will help in isolating and mapping the genes for exfoliatin production.

(16) **Technicial Approach:**

Staphylococcal plasmid DNA will be isolated by the cleared lysis method and by cesium chloride ultracentrifugation density gradients. The isolated plasmid DNA will then be subjected to endonuclease digestion and then compared with a reference digestion pattern by agarose gell electrophoresis.

(17) **Progress:**

This protocol has been delayed owing to the lack of a DNA transilluminator and the unavailability of lysostaphin. The DNA transilluminator is necessary for the detection of plasmid DNA. This instrument was recently purchased and obtained by the CIS microbiology service. Unfortunately our supply of lysostaphin was damaged and destroyed in shipping, preventing us from working on this protocol. Lysostaphin is a lytic enzyme which specficially digests the cell wall of staphylococcus. It is necessary to lyse the cell to obtain free plasmid DNA. Once this enzyme has been purchased, this protocol will be completed. This report was made for Fiscal Year 1983.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/102 (3) Status: ongoing

(4) Title:
A survey of extrachromosomal elements of Legionella pneumophilia serotype 1, from environmental and clinical isolates.

(5) Start Date: February 1983 (6) Est Compl Date: December 1983

(7) Principal Investigator:
Steven M. Opal, MD, MAJ, MC
Carol Ciesielski, MD, Infect. Disease Svc, CU Med Center

(8) Facility: FAMC

(9) Dept/Svc: DOM, Infectious Dis.

(10) Assoc Investigators:
Ms. Pari Morse, GS-9, Microbiologist
Paul G. Englekirk, LTC, MSC, PhD

(11) Key Words:
Legionella pneumophilia
Serotype I, virulence plasmids

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: none

d. Total Number of Subjects Enrolled to Date: none

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:
The objective of this protocol is to isolate the plasmid DNA of several environmental and clinical isolates of L. pneumophilia, and to compare their plasmid profiles.

(16) Technicial Approach:
Legionella pneumophilia plasmid DNA will be prepared by rapid alkaline precipitation method and analyzed by agarose gel electrophoresis.

(17) Progress:
Progress on this protocol is nearly reached completion. Delays occurred owing to the absence of a DNA transilluminator. Now that this equipment is available, plasmid profiles have been run on several isolates of Legionella. Numerous other isolates need to be run prior to completing the protocol. This report was made for Fiscal Year 1983.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/103 (3) Status: Ongoing

(4) Title:
Role of Vitamin K in Bone Metabolism

(5) Start Date: August 1983	(6) Est Compl Date: August 1984
(7) Principal Investigator: V.G. Iyengar	(8) Facility: FAMC
(9) Dept/Svc: Hem/Onc, DOM	(10) Assoc Investigators: Elder Granger, M.D.
(11) Key Words: Bone Density Measurements	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA
c. Number of Subjects Enrolled During Reporting Period: Nine
d. Total Number of Subjects Enrolled to Date: Nine
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".
None

(15) Study Objective:
The objective of this protocol is to find out, in a cross-sectional study with controls, if Coumadin in long-term therapeutic doses can induce significant osteopenia or osteoporosis.

(16) Technical approach:
Patients on Coumadin for more than $\frac{1}{1}$ year and age matched male controls undergo one time interview with the investigators. One time laboratory tests to include: CBC, SMA-18, PT, PTT, 24° urine, calcium and phosphorus, serum FSH, LH, testosterone, PTH, serum ionized calcium and bone density measurements are obtained after obtaining informed signed consent.

(17) Progress:
Only nine patients have been entered on protocol to date, too few to draw any conclusions at present. With Dr. Granger as a new associate investigator, the rate of patient accrual should improve.

Publications and Presentations: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/104 (3) Status: TERMINATED

(4) Title: Double-blind placebo-controlled clinical trial of pseudomonic acid (BRL 4910A) in the treatment of skin infections.

(5) Start Date: 1 Jul 83

(6) Est Compl Date: TERMINATED

(7) Principal Investigator:
James E. Fitzpatrick, M.D.
Maj, MC

(8) Facility: FAMC
Dermatology Service

(9) Dept/Svc: Dermatology/DOM

(10) Assoc Investigators:
Lance Hinther, M.D., Maj, MC

(11) Key Words:
Pseudomonic acid/skin infections

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 3

d. Total Number of Subjects Enrolled to Date: 3

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None.

(15) Study Objective: To compare the safety and efficiency of pseudomonic acid with placebo in patients with skin infections.

(16) TECHNICAL APPROACH: Double-blind placebo-controlled study to vandomize fifty patients with minor secondary skin infections (gram-positive bacteria). Each patient will apply the placebo or active drug three times per day for eight days as directed. Infections will be evaluated both clinically and bacteriologically.

(17) PROGRESS: Three patients have been entered in the study (fiscal year 1 Oct 82 to 30 Sep 83). Two patients responded favorably and one patient became worse. The patient that became worse was declared a failure and successfully treated with antibiotics.

Beecham Pharmaceuticals has discontinued the protocol at all involved research institutions effective 6 October 1983.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/105 (3) Status: Completed

(4) Title: Lung Mechanics in Dogs During High Frequency Jet Ventilation

(5) Start Date: 10 April 1983	(6) Est Compl Date: 1 June 1983
(7) Principal Investigator: CPT Michael D. Schlachter, M.D., MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Pulmonary F.	(10) Assoc Investigators:
(11) Key Words: Lungs Jet ventilation body box plethysmography	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: Measurements of tidal volume and changes in FRC in dogs during High Frequency Jet Ventilation using body box plethysmography and relating these measurements to pleural pressures, airway pressures, and better blood gases to better understand lung mechanics in High Frequency Jet Ventilation.

(16) Technical Approach: Will use approximately 6 dogs weighing 45 to 60 kg. The dogs will be anesthetized with pentobarbital followed by endotracheal intubation. Cannulation will be down to allow pressure monitering of the following vascular and body cavity: central vein, femoral artery, pleural cavity with 16 gauge intracatheter and trachea to monitor airway pressures. The dog will then be placed into a body box (plethysmograph) to measure tidal volume and changes in functional residual capacity and then comparisons made of conventional ventilation and high frequency ventilation at different frequencies.

(17) Progress: This study has been completed. All information is being compiled for comparison results.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83:106D (3) Status: Ongoing

(4) Title: Efficacy of Weekly Pulse Methotrexate in the Treatment of Rheumatoid Arthritis: A double blind crossover study

(5) Start Date: 1983	(6) Est Compl Date: 1987
(7) Principal Investigator: Peter A. Andersen, MD, MAJ, MC Sterling G. West, MD, MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: Medicine/Rheumatology	(10) Assoc Investigators: Robert G. Claypool, MD, COL, MC Richard C. Welton, MD, MAJ, MC Charles S. Via, MD, MAJ, MC
(11) Key Words: RA, Methotrexate	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 13

d. Total Number of Subjects Enrolled to Date: 13

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: Part I - Evaluate effectiveness of weekly pulse MTX to control activity of RA in patients who have failed therapy with gold shots and D-Penicillamine. Part II - Evaluate the potential of weekly pulse MTX to halt or decrease the progress of destructive changes of articular cartilage and bone. Part III - Evaluate the potential for toxicity of weekly pulse MTX.

(16) Technical Approach: Part I - 27 week double blind crossover study of MTX vs placebo comparing joint counts, functional tests, laboratory parameters and subjective scores. Part II - Blinded comparison of pretreatment and q6month sequential roentenographs of involved joints. Part III - Evaluation of biochemical liver function studies and comparison with sequential changes on liver biopsy.

(17) Progress: All progress occurred in Fiscal Year 1982/1983. Thirteen patients have been enrolled, twelve in Parts I, II and III and one in Parts II and III. Two patients have completed the double blind crossover phase by acceleration of the second arm. Both patients had received the active medication during the first arm with significant improvement and were unable to tolerate the increase in symptoms during the placebo phase. No significant toxicity requiring discontinuation of the medication has occurred. Data for Parts II and III are being gathered.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/ 107 (3) Status: ONGOING

(4) Title: Use of Isotretinoin in Prevention of Basal Cell Carcinoma.

(5) Start Date: Approximately Nov 83	(6) Est Compl Date: 5 years from start
(7) Principal Investigator: J. RAMSEY MELLETTE, JR., M.D.,	(8) Facility: FAMC Dermatology Service
(9) Dept/Svc: Medicine/Dermatology	(10) Assoc Investigators: Linda M. Serwatka, CPT, MC - Co-Principal Investigator.
(11) Key Words: Isotretinoin Retinoids Basal Cell Carcinomas	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:

a. To evaluate the effectiveness of low dosage levels of Isotretinoin in reducing the incidence of basal cell carcinomas in a high risk population.

b. To examine possible side-effects associated with long term administration of low doses of Isotretinoin.

(16). TECHNICAL APPROACH: This will be a double-blind study with participants randomly assigned to active drug (Isotretinoin) or placebo. Patients will take their assigned drug or placebo for three years and will be followed for two years after discontinuing medication. Compliance, side-effects and appearance of new basal cell carcinomas will be noted.

(17). Study has not yet started pending signing of contracts. It is hoped the contracts will be signed in early November and we can commence the study.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/108 (3) Status: Ongoing

(4) Title: Multicenter, Double-Blind, Randomized, Parallel Comparison of Two Different Dosage Regimens of Naproxen Sodium in Patients with Bone Pain Due to Metastatic Cancer

(5) Start Date: Jan 83 (6) Est Compl Date: 1984

(7) Principal Investigator:
Arlene J. Zaloznik,M.D.,MAJ,MC

(8) Facility: FAMC

(9) Dept/Svc: Hematology/Oncology

(10) Assoc Investigators:
Nicholas J. DiBella, M.D., COL, MC

(11) Key Words:
Naprosyn
Bone pain
Metastatic cancer

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". Not applicable

(15) Study Objective:

To compare the relative efficacy and safety of a higher total dose of Naproxen Sodium to a lower total daily dose in patients with moderate to severe persistent bone pain due to metastatic cancer.

(16) Technical Approach:

Patients are randomized to receive either high dose or low dose Naproxen Sodium for three days to control severe persistent bone pain.

(17) Progress:

Because of some inherent problems in the design of the protocol, no patients have as yet been registered. The principal investigator will be having a meeting with the people from Syntex Laboratories to attempt to resolve some of these problems.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/109 (3) Status: Ongoing

(4) Title:
EARLY REGIONAL WALL MOTION ABNORMALITIES IN NON-TRANSMURAL MYOCARDIAL INFARCTION

(5) Start Date: Mar 1983 (6) Est Compl Date: May 1984

(7) Principal Investigator:

ROBERT C. FLOREK MD MAJ MC

(8) Facility: FAMC

(9) Dept/Svc: Dept Medicine/Cardio Svc

(10) Assoc Investigators:

CARLOS A. MENDOZA MD MAJ MC
KENNETH E. TRNKA MD MAJ MC
DAVID C. HOPPER C P T MSG USA

(11) Key Words:
ECHOCARDIOGRAPHY
MYOCARDIAL INFARCTION

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA
c. Number of Subjects Enrolled During Reporting Period: 17
d. Total Number of Subjects Enrolled to Date: 17
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

NA

(15) Study Objective:
To assess the utility of two-dimensional echocardiography in facilitating the early diagnosis of non-transmural myocardial infarction.

(16) Patients entering the FAMC CCU are given: 2-D echocardiography examination within 12 hours of admission. These studies are then evaluated for cardiac wall motion abnormalities. The study is applied only to those patients admitted for chest pain without obvious transmural MI.

(17) Data on 17 patients has been accumulated. This represents approximately half the minimum number of subjects desired. The study is presently ongoing in the data collection stage in the fiscal year 1983.

PUBLICATIONS AND PRESENTATIONS: None.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/110EU (3) Status: completed

(4) Title:
Clinical trials in patients infected with cysticerci of T. solium, neurocysticercosis using praziquantel tablets 600 mg.

(5) Start Date: June 83	(6) Est Compl Date: July 83
(7) Principal Investigator: **Vicenta Salanova, MD, MAJ, MC** **Neurologist, FAMC** **Steven M. Opal, MD, MAJ, MC**	(8) Facility: FAMC
(9) Dept/Svc: DOM, Neuro/Inf Disease	(10) Assoc Investigators: None
(11) Key Words: **Neurocysticercosis, praziquantel**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA
c. Number of Subjects Enrolled During Reporting Period: one
d. Total Number of Subjects Enrolled to Date: one
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None.

(15) Study Objective:
The objective of this study was to assess the tolerance and efficacy of the antiparasitic drug praziquental, in a patient with neurocysticercosis.

(16) Technicial Approach:
The drug was obtained from EM industries in New York and administered under strict protocol guidelines in accordance with FDA regulations. The patient was monitored by physical exam, eye exam, CT scan, and periodic blood studies.

(17) Progress:
The study was completed in July 1983. The patient tolerated the drug well and there was objective evidence of improvement on physical exam and CT scans. This report was completed in Fiscal year 1983.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/112 (3) Status: Ongoing

(4) Title: **Steroid Therapy in Chronic Obstructive Lung Disease - Prediction of Response by Lung Mechanics**

(5) Start Date: **August 1983**	(6) Est Compl Date: **August 1985**
(7) Principal Investigator: **Gordon Keith Wolfe, M.D., CPT, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Medicine/Pulmonary**	(10) Assoc Investigators: **Reuben M. Cherniack, M.D., Dept of Med Nat'l Jewish Hosp/Nat'l Asthma Ctr, Denver, CO** **E. Fernandez, M.D., Dept of Medicine Nat'l Jewish Hosp, Denver, CO**
(11) Key Words: **chronic obstructive lung dis. corticosteroids**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest IUC Review: **NA** b. Review Results: **NA**

c. Number of Subjects Enrolled During Reporting Period: **7**

d. Total Number of Subjects Enrolled to Date: **7**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e" **None**

(15) Study Objective: **a) A detailed study of lung mechanics in patients with stable chronic obstructive lung disease. b) Classification of these patients by their predominant pathophysiology by the use of lung mechanics. c) Observation of the change in lung mechanics after short-term corticosteroid therapy and the relationship of these changes to the pathophysiologic classification. d) Evaluation of exercise performance in patients with stable chronic obstructive lung disease, the relationship of exercise performance to a pathophysiologic classification, and the change in exercise performance induced by short-term corticosteroid therapy. 3) Evaluation of bronchial reactivity in patients with chronic obstructive lung disease and the relationship of this to response to corticosteroid therapy.**

(16) Technical Approach: A double-blinded trial with methylprednisolone verses placebo in consecutive 3 week periods with testing of lung mechanics, exercise performance and bronchial reactivity to histamine before, between consecutive trials and after the study.

(17) Progress: Thus far, there are only seven of the expected 25-30 participants in the steroid study. The data thus far has not been evaluated and not to be evaluated until approximately 10 participants have completed the study.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/113 (3) Status: ONGOING

(4) Title: Growth of Human Keratinocyte in Defined Medium and Study of Their Growth and Immunological Characteristics.

(5) Start Date: July 83	(6) Est Compl Date: July 84
(7) Principal Investigator: Ronald E. Grimwood, M.D. Maj(P), MC	(8) Facility: FAMC DCI
(9) Dept/Svc: Dermatology/Medicine	(10) Assoc Investigators: J. Clark Huff, M.D. John Harbel, Cpt, MSC Phil O'Barr, PHD - DAC
(11) Key Words: Keratinocyte	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: Growth and Study of Human Keratinocytes in Culture.

16. Technical Approach: The technical approach will be growth of human keratinocytes from newborn foreskins utilizing Dr. Ham's technique from the University of Colorado in Boulder. The cells will then have their proteins extracted using a defined reducing substance with the protein extract then placed on an SDS page gel electrophoresis unit, followed by nitrocellulose transfer. The final phase will be identification of specific antigens (i.e. bullous pemphigoid) that are produced by a keratinocytes in vivo.

17. Progress: To date we have been able to work out most of the culture problems which have included acquisition of a controlled CO_2 incubator, Ham's medium from the University of Colorado, whole bovine pituitary extract, and the various supplements needed for the media. We are now in the process of growing sufficient cells in order to have an adequate source of proteins for the electrophoresis gel work.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#:83/114D (3) Status:on-going

(4) Title: A multi-centered, double-blind, randomized study of the steroid sparing effect of budesonide vs. placebo in adult patients with chronic asthma.

(5) Start Date: 1983	(6) Est Compl Date: 1984
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC Allergy-Immunology Clinic
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: William Long, MAJ, MC Robert Bowen, CPT, MC
(11) Key Words: budesonide steroid sparing effect	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA
c. Number of Subjects Enrolled During Reporting Period: 5
d. Total Number of Subjects Enrolled to Date: 5
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

none

(15) Study Objective: To evaluate the extent to which budesonide can replace oral prednisone in patients with bronchial asthma.

(16) Technical Approach: Patients will be stabilized on oral prednisone;either inhaled budesonide or inhaled placebo will be substituted and an attempt will be made over 6 months to reduce the prednisone dosage.

(17) Progress: Patient enrollment in this study began in September, 1983, and will continue for the next 6 months.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/115D (3) Status: on-going

(4) Title: The effect of oral ketotifen on the development of subsensitivity to inhaled beta adrenergic bronchodilators

(5) Start Date: 1983	(6) Est Compl Date: 1984
(7) Principal Investigator: HS Nelson, MD, COL, MC	(8) Facility: FAMC Allergy-Immunology Clinic
(9) Dept/Svc: Med/Allergy	(10) Assoc Investigators: Richard W. Weber, MD, COL, MC Kenneth Kray, MD, MAJ, MC Mark Vandewalker, MD, MAJ, MC
(11) Key Words: Ketotifen adrenergic bronchodilators subsensitivity	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

N.A.

(15) Study Objective: To determine whether the partial tolerance to the bronchodilator effects of beta adrenergic agonists which occurs with chronic administration can be prevented or attenuated by the concomitant administration of ketotifen.

(16) Technical Approach: Patients will have their response to inhaled terbutaline measured. They will then receive in double-blind crossover design inhaled terbutaline or inhaled placebo. Following chronic treatment for 6 weeks, the response to inhaled terbutaline will again be tested. There will follow a month washout period, and then the same study will be repeated using the alternative medication.

(17) Progress: Word that this protocol was approved was just received on 13 Oct 83.

Publications and Presentations: none

SURGERY

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 71/202 (3) Status: Completed

(4) Title:

Evaluation of Peripheral Nerve Injuries at FAMC

(5) Start Date: 1971	(6) Est Compl Date: Completed
(7) Principal Investigator: William W. Eversmann, Jr., CL, MC	(8) Facility: FAMC
(9) Dept/Svc: Surgery/Orthopedics	(10) Assoc Investigators: F. V. Coville, COL, MC
(11) Key Words: neurorrhaphy peripheral nerve	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jul 83 b. Review Results: Completed

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 400 estimate

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: To establish a pattern of peripheral nerve repair and recovery following injuries to peripheral nerves and in most cases following neurorrhaphy of the peripheral nerve.

(16) Technical Approach: Detailed questionnaire follow-up of patients with peripheral nerve injuries who have undergone repair are followed by detailed outpatient physical examination and evaluation supplemented by questionnaires. The questionnaires are divided into specific detailed questions and are customized for the level and type of nerve injury.

(17) Progress: During FY 1983 we have terminated the questionnaire follow-up of patients, accumulating the data for determining if adequate data has been obtained.

PRESENTATIONS/PUBLICATIONS: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 73/219 (3) Status: Ongoing

(4) Title:

Treatment of Urinary Tract Trauma in the Laboratory Animal

(5) Start Date: May 1973 (6) Est Compl Date: Indefinite

(7) Principle Investigator: (8) Facility: FAMC

LCDR William Shipton,M.D.,MC

(9) Dept/Svc: Surgery/Urology (10) Assoc Investigators:
Cpt John Wolthuis, MC
Cpt Winston Vaught, MC
LTC Torrence Wilson and Michael J. Raife, MC
Col H. E. Fauver and E.G. Buck, MC

(11) Key Words:
Trauma
Renal transplantation
Iosine

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost: *
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jun 83 b. Review Results: ongoing
c. Number of Subjects Enrolled During Reporting Period: N/A
d. Total Number of Subjects Enrolled to Date: N/A
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

N/A

(15) Study Objective:
Investigation of, and comparison of various modes of treatment of urological trauma with emphasis on newer surgical techniques to include renal vascular repair, bench surgery, autotransplantation and pre- and intraoperative chemical intervention, e.g., use of inosine.

(16 Technical Approach:
Various techniques of vascular reanastomosis and autotransplantation will be performed. Function preservation in the face of these surgeries, and in face of temporary suspension of renal blood flow will be evaluated using inosine as a preservative. IVP and/or renal scans may be used at intervals to ascertain success or failure.

(17) Progress:
This protocol continues to be an invaluable and irreplacable tool for teaching of residents and staff. Now that we are fully staffed, this program will be utilized fully.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 73/219

SERVICE Urology DEPARTMENT Surgery

(1) Levisay, G.L.: Renal Autotransplantation in the Dog. Proc of the Kimbrough Urolo Sem, January 1974.

(2) Jackson, J.E.: Renal Autotransplantation with Partial Nephrectomy in the Dog. Proc of the South Central Sect, AUA, Denver, CO 15-19 September 1974.

(3) Page, M.E.: Renal Autotransplantation with Venal Caval Occlusion. Proc of the Kimbrough Urolo Sem, Seattle, WA, 5 October 1975.

PRESENTATIONS:

(1) Levisay, G.L.: Renal Autotransplantation in the Dog. Presented: Kimbrough Urological Seminar, Washington, D. C., January 1974.

(2) Levisay, G.L.: Renal Autotransplantation in the Dog. Presented: South Central Section Meeting of the AUA, Denver, CO, September 1974.

(3) Jackson, J.E.: Renal Autotransplantation with Partial Nephrectomy in the Dog. Presented: South Central Section of the AUA, Denver, CO, 15-19 September 1974.

(4) Jackson, J.E.: Renal Autotransplantation with Partial Nephrectomy in the Dog. Presented: Kimbrough Urological Seminar, San Antonio, TX, 14-19 November 1974.

(5) Page, M.E.: Renal Autotransplantation with Vena Caval Occlusion. Seattle, Washington, October 1975.

(6) Page, M.E. and Weigel, J.W.: Exhibit-renal transplantation with Proximal Vena Caval. Presented: South Central Section Meeting in Urology, September 1975.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/200 (3) Status: Ongoing

(4) Title:

Anastomosis of the Dog Vas Deferens Using Microsurgical Technique

(5) Start Date: April 1978

(6) Est Compl Date: Indefinite

(7) Principal Investigator:

Col Howard E. Fauver, M.D., MC

(8) Facility: FAMC

(9) Dept/Svc: Surgery/Urology

(10) Assoc Investigators:
Col Edward G. Buck, MC
LTC Torrence M. Wilson, MC
LTC Michael J. Raife, MC
LCDR William E. Shipton, MC
Cpt John S. Wolthuis, MC
Cpt Winston W. Vaught, MC

(11) Key Words:

Microsurgery-vasovasostomy

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: N/A

d. Total Number of Subjects Enrolled to Date: N/A

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective:

To master the microsurgical anastomosis of the vas deferens.

(16) Technical Approach: Standard bilateral vasectomy performed on mongrel male dogs. Three weeks later a two layer microsurgical anastomosis using 10-0 nylon is completed. Three weeks later the dog is sacrificed and bilateral vasograms completed.

(17) Progress: This protocol continues to be an invaluable and irreplacable tool for teaching of residents and staff in the technique of microsurgery.

Continuing experimentation with various sutures and microsurgical technique is being performed. Since it is felt that a minimum of thirty hours of microscope time is essential before this procedure can be performed in human subjects, this current protocol represents the only practical way in which experience can be gained.

CONTINUATION SHEET for ANNUAL PROGRESS REPORT FY 83 Proto No. 78/200

PUBLICATIONS:

Vaccaro, J.A.: Microscopic Vasovasostomy: The Fitzsimons Experience. Kimbrough Urological Proceedings, Vol. 14, 1980.

PRESENTATIONS:

Vaccaro, J.A.: Microscopic Vasovasostomy: The Fitzsimons Experience. Presented: Kimbrough Urological Seminar, San Diego, CA, November 1980.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/201 (3) Status: Ongoing

(4) Title:

Clinical Study for Intraocular Lenses

(5) Start Date: September 1976	(6) Est Compl Date: Unknown
(7) Principal Investigator: Andrew J. Cottingham,Jr.,M.D.	(8) Facility: FAMC
(9) Dept/Svc: Surgery/Ophthalmology	(10) Assoc Investigators: Calvin E. Mein, M.D., Major, MC Douglas A. Freeley,M.D., LTC, MC Floyd M. Cornell, M.D., Major, MC Ronald R. Holweger, M.D., Major, MC John A. McCubbin, M.D., Captain, MC (cont'd)
(11) Key Words: Cataract Intraocular Lens Pseudophakos	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 300 implants

d. Total Number of Subjects Enrolled to Date: 800 intraocular lenses

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective:

1). To determine postoperative visual acuity of patients receiving an intraocular lens, and to compare those results with those of a control group of patients who undergo cataract surgery but do not receive an intraocular lens.
2). To describe the occurrence and time course of postoperative ocular complications and adverse reactions both for intraocular lens implant subjects and for control subjects.
3). To compare the occurrence of adverse reactions and ocular complications in the implant group and in the control group, in order to delineate any significant difference.
4). To describe the occurrence of postoperative lens complications for the implant group, and their relationship to ocular complications.
5). To identify subgroups within the implant study population that are at "high risk" of particular complications as compared to the control group.

(16) Technical Approach:

After didactic courses, observations, laboratory practice and assistance with an experienced implant surgeon, a surgeon who can perform an accomplished cataract extraction, is then allowed to perform intraocular lens surgery under proper tutorage. Postoperative examinations include: pachyometry, keratometry and specular microscopy. Contraindications to surgery include: patients with good visual potential in only one eye, proliferative diabetic retinopathy,

(cont'd)

(10)
William R. Wilson, M.D., Captain, MC
Anthony R. Truxal, M.D., Captain, MC
Ricardo J. Ramirez, M.D., Captain, MC

(16)
rubeosis irides, high axial myopia, and inadequately controlled glaucoma, Fuch's endothelial dystrophy, and a history of previous retinal detachments or uveitis.

(17) Progress:
Due to the initial 25 implants between September 1976 and February 1978, the implantation of intraocular lenses at FAMC was expanded. We now have implanted over 800 intraocular lenses.
As a result of the past seven years experience, we have evolved better guidelines for patient selection, better surgical techniques and improved guidance for postoperative care. Our study includes tabulation of operative complications, postoperative complications, visual results, endothelial cell loss, corneal thickness changes, changes in corneal astigmatism, and residual refractive error.

The results of every ophthalmologist implanting intraocular lenses in the United States is additionally compiled by computer in Washington, D.C. by the FDA. Our results are a small part of this overall study. Final data from this massive study is to be completed in the future. As a result of this study many intraocular lenses have been taken off the protocol due to their proven safety. These devices that have been taken off the protocol study need only be registered when implanted at this time. Others have been discontinued from manufacture as a result of the development of superior lens devices.

Publications: none

PRESENTATIONS for FY 83 Annual Progress Report Proto No. 78/201

SERVICE Ophthalmology DEPARTMENT Dept of Surgery

(1) Cottingham, Jr., A.J.: Keratoplasty. Presented: Optometry Meeting, FAMC, October 1978.

(2) Cottingham, Jr., A.J.: Endophthalmitis - Cause and Treatment. Presented: University of Colorado Health Sciences Center, January 1979.

(3) Cottingham, Jr., A.J.: Corneal Keratomycoses. Presented: University of Colorado Health Sciences Center, January 1979.

(4) Cottingham, Jr., A.J.: Bacterial Corneal Ulcers. Presented: University of Colorado Health Sciences Center, January 1979.

(5) Cottingham, Jr., A.J.: The Use of Vitrectomy Instrumentation in Anterior Segment Reconstruction. Presented: Scheie Institute Trauma Symposia, Philadelphia, Pennsylvania, September 1979.

(6) Cottingham, Jr., A.J.: An Analysis of the Initial Twenty-Five Intraocular Lens Implantations in an Ophthalmology Residency Training Program. Presented: 7th Biennial, Walter Reed Ophthalmology Post Graduate Course and Alumni Meeting, April 1978.

(7) Cottingham, Jr., A.J.: An Analysis of the Initial Twenty-Five Intraocular Lens Implantation in an Ophthalmology Training Program. Presented: Bascom Palmer Eye Insititute Annual Resident Alumni Meeting, June 1978.

(8) Cottingham, Jr., A.J.: Residual Astigmatism - Postoperative Keratoplasty. Presented: American Academy of Ophthalmology, Chicago, Illinois, 7 November 1980.

(9) Cottingham, Jr., A.J.: Endophthalmitis - Diagnosis and Treatment. Presented: 9th Biennial Walter Reed Ophthalmology Post Graduate Course and Alumni Meeting, April 1982.

(10) Cottingham, Jr., A.J.: Posterior Chamber Implantation of Intraocular Lenses. Presented: Letterman Army Medical Center, April 1982.

(11) Cottingham, Jr., A.J.: Ocular Trauma for the Non-ophthalmologist. Presented: Garey Wratten Surgical Symposium, San Antonio, Texas, March 1982.

Continued-

(12) Cottingham, A.J.: Endophthalmitis - Diagnosis and Treatment. Presented: Letterman Army Medical Center, San Francisco, CA, February 1983.

(13) Cottingham, A.J.: The Use of the Ocutome in Anterior Segment Surgery. Presented: Letterman Army Medical Center, San Francisco, CA, February 1983.

(14) Cottingham, A.J.: Wound Healing. Presented: Leterman Army Medical Center, San Francisco, CA, February 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/201 (3) Status: **Completed**

(4) Title: **Platelet Function in Disease States**

(5) Start Date: **Aug 79**	(6) Est Compl Date: **Oct 82**
(7) Principal Investigator: **Jeffrey Clark, M.D., LTC, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Surgery/Gen Surg Svc**	(10) Assoc Investigators: **T.P. O'Barr, Ph.D., DAC Donald G. Corby, M.D., COL, MC J. Bryan Smith, Ph.D. Ellen Swanson, M.S., DAC**
(11) Key Words: **prostaglandins, thromboxane, arachidonic acid, prostacyclin, platelets**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **Oct 82** b. Review Results: **Completed**

c. Number of Subjects Enrolled During Reporting Period: **52**

d. Total Number of Subjects Enrolled to Date: **52**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective:

a. To develop and assess methods of measuring in vitro platelet function.

b. To investigate the importance of arachidonic acid (AA) metabolism in platelet function.

c. To use the TxB_2 radioimmunoassay to measure platelet survival.

d. To use the above described tests of platelet function to screen.

e. To investigate in vivo platelet function using an animal model and the above described platelet function tests.

f. To propose and test new clinical therapeutic modalities to treat disease of altered platelet function. These modalities will be based on the results obtained from pursuing objectives a,b,c,d, and e.

(16) Technical Approach: To use tests of platelet function to screen surgical patients for platelet related abnormalties.

(17) This study has been completed.

Publications:

Ferraris, V.A. and Swanson, Ellen: Aspirin Usage and Perioperative Blood Loss in Patients Undergoing Unexpected Operations. Surgery 156:439-442, April 1983.

Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/200 (3) Status: Ongoing

(4) Title: **Hearing Loss in Hypothyroidism**

(5) Start Date: **1980**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Marc Sachs, MD, CPT, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Surgery/Otolaryngology**	(10) Assoc Investigators: **John Kolmer, COL, MC** **Fred Hofeldt, COL, MC**
(11) Key Words: **hypothyroidism** **hearing loss**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 2

d. Total Number of Subjects Enrolled to Date: 15

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **The objectives are to determine if there is a relationship of hearing loss to hypothyroidism, the locus of this effect, and the potential reversability of this effect.**

(16) Technical Approach: Newly diagnosed hypothyroid patients are given a routine hearing evaluation, tympanograms and a BSER. They are then restudied four weeks after beginning therapy, and again at least twelve weeks later.

(17) Progress: Progress is slow due to the small number of patients being referred with hypothyroidism.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/201 (3) Status: Ongoing

(4) Title: Comparison of Cardiac Output and Left Ventricular Stroke Work Before and After Standard Anesthesia Induction of Patients Undergoing Surgical Correction of Combined Mitral Valve Disease and Coronary Artery Disease

(5) Start Date: 1 October 1980	(6) Est Compl Date: 30 Sep 85
(7) Principal Investigator: William J. Reynolds, MD LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Surgery/Anes&Opr Svc	(10) Assoc Investigators: See attached
(11) Key Words: fantanyl, cardiovascular anesthesia, coronary artery disease, mitral valvular disease, open heart surgery	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 5

d. Total Number of Subjects Enrolled to Date: 11

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: To determine the presence or absence of significant statistical difference of left ventricular work as affected by conventional cardiac anesthesia techniques.

(16) Technical Approach: Real-time data is obtained from pulmonary artery and radial artery catheters using transistor-generated analog data. Portable digital microprocessor provides all second generation data analysis. Cardiac anesthesia uses routine technique.

(17) Progress: Two additional studies were performed during the fiscal year. No complications or difficulties have been encountered.

Publications and Presentations: none

CONTINUATION SHEET, FY 83 ANNUAL PROGRESS REPORT Proto No. 80/201

(10) Associate Investigators:
MAJ Jonathan H. Chang, MC, Anes & Oper Svc
COL Konstantine Kalandros, ANC, CRNA
LTC Raymond Golden, ANC, CRNA
LTC Richard Lenig, ANC, CRNA
MAJ David Bohner, ANC, CRNA
MAJ Donald Newton, ANC, CRNA
CPT Yvonne Boles, ANC, CRNA
CPT Brenda Galeas, ANC, CRNA
CPT Frederick Masters, ANC, CRNA
Ms Rosemarie Periollo, DAC, CRNA
Ms Vivian Lucas, DAC, CRNA
Mr. Eugene Pennington, DAC, CRNA
CPT Marshall L. Fay, MC, Anes & Oper Svc
CPT John K. Williford, MC, Anes & Oper Svc

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/200 (3) Status: **Terminated**

(4) Title: **Biomechanical and Anatomical Characterization of Unstable Burst Fractures of the Thoracolumbar Spine and an Evaluation of Surgical Approaches for Stabilization and Decompression.**

(5) Start Date: **Apr 81**	(6) Est Compl Date: **1983**
(7) Principal Investigator: **George G. Richardson, Jr.** **LTC, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Surgery/Orthopedics**	(10) Assoc Investigators: **COL Ghaed** **Dr. Lowe** **Mr. Jatko**
(11) Key Words: **spine fractures**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: **Mar 83** b. Review Results: **Terminated**

c. Number of Subjects Enrolled During Reporting Period: **NA**

d. Total Number of Subjects Enrolled to Date: **NA**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **Study of the most effective way to operatively stabilize spine.**

(16) Technical Approach: Bovine spine were to be tested under a compression force to failure with and without surgical fixation.

(17) Progress: Dr. Richardson had difficulty obtaining satisfactory specimens and was transferred before he could work out all the difficulties with the protocol.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/202 (3) Status: Ongoing

(4) Title: **Treatment of Recurrent Otitis Media: Chemoprophylaxis va Tympanostomy Tubes**

(5) Start Date: **January 1982**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Carlos Gonzales, MD COT, MC**	(8) Facility: **FAMC**
(9) Dept/Svc: **Surgery/ENT**	(10) Assoc Investigators: **James Arnold, MD, CPT, MC; John W. Kolmer, MD, COL, MC; Thomas Kueser, MD, CPT, MC; Edward A. Woody, MD, CPT, MC**
(11) Key Words: **recurrent otitis media; tympanostomy tubes; chemoprophylaxis**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jan 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 56

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To determine which modality of treatment for recurrent otitis media, chemoprophylaxis or P.E. tubes or both and if one or both offers better control of future otitis media episodes considering morbidity and complications.**

(16) Technical Approach: Patients who meet criteria of study will be randomly placed in three different groups. Patients will be followed on a monthly basis for six months. Episodes of recurrent otitis media will be reported and seen by us.

(17) Progress: This protocol will be continued until 65 patients are enrolled and followed for 6 months. Dr. Arnold, Associate Investigator, has been transferred to MAMC where he is to start this protocol and results will be combined.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/201 (3) Status: Ongoing

(4) Title: **Prospective Double Blind Randomized Study of the Effects of Supplemental Dietary Calcium and Vitamin D on the Healing of Distal Radius Fractures in Adults**

(5) Start Date: January 1982	(6) Est Compl Date: July 1984
(7) Principal Investigator: **Timothy S. Loth, M.D.** **Captain, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Surgery/Orthopedic**	(10) Assoc Investigators:
(11) Key Words: **Dietary Calcium** **Dietary Vitamin D** **Fractures**	**Steve Flood, M.D., CPT, MC** **Peter Blue, M.D., LTC, MC** **Nasser Ghaed, M.D., COL, MC**
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 4/83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 5

d. Total Number of Subjects Enrolled to Date: 5

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To determine whether dietary calcium can increase the rate and quality of fracture healing.**

(16) Technical Approach: Volunteers will be assigned randomly to Group A (which will receive calcium and vitamin D) or Group B (which will receive placebo). Bone densities will be performed on both wrists 3,6,12 and 24 who after fracture. An additional bone density will be performed within 1 week of fracture on the uninjured extremity to act as a control. After 50 cases have been collected the code will be broken for this study.

(17) Progress: We have enrolled 5 patients in the study thus far. Additional cases will be required prior to final analysis.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/202-N (3) Status: Ongoing

(4) Title:

Lateral electrical stimulation for the treatment of scoliosis.

(5) Start Date: March 1982	(6) Est Compl Date: March 1986
(7) Principal Investigator: Joe K. Ozaki, COL, MC	(8) Facility: FAMC
(9) Dept/Svc: Orthopedic/Surgery	(10) Assoc Investigators:
(11) Key Words: Scoliosis	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: N/A b. Review Results: N/A

c. Number of Subjects Enrolled During Reporting Period: 2

d. Total Number of Subjects Enrolled to Date: 5

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

(15) Study Objective: To demonstrate the nocturnal transcutaneous electrical stimulation of paraspinal muscles is as effective as the use of a full-time spinal orthosis (brace) in the treatment of idiopathic scoliosis occurring in skeletally immature adolescents.

(16) Technical Approach: The scoliosis patients who qualify for the study will be fit with electrical stimulation unit and instructed in its use. They will then have a two week trial period at home to insure that they can conform to the protocol. They are then followed closely at regular intervals to ascertain the outcome.

(17) Progress: There have been a total of five patients started in the program at FAMC. Four patients are continuing in the program without problems. One patient discontinued LESS treatment because of skin electrode irritation and desire to change treatment course to a brace. All curves to date have been kept from progressing.

Publications and Presentations: none.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/203-N (3) Status: Ongoing

(4) Title:
Effectiveness of EMG Biofeedback in Maintaining Fluency Obtained in an Intensive Stuttering Treatment Program

(5) Start Date: 1982 (6) Est Compl Date: 30 months after start

(7) Principal Investigator:

Jon M. Hasbrouck, Ph.D.

(8) Facility: FAMC

(9) Dept/Svc: Surgery/Speech Path.

(10) Assoc Investigators:

Fran Lowry-Romero, M.S.

(11) Key Words:

Stuttering
Biofeedback

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: May 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 10

d. Total Number of Subjects Enrolled to Date: 10

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:
Compare effects of extensive EMG biofeedback training and practice to EMG monitoring with no biofeedback and to no EMG monitoring and no biofeedback, to derermine how EMG biofeedback related to the acquisition and maintenance of fluency in an intensive adult stuttering treatment program.

(16) Technical Approach: SS in 3 groups will be pretested, receive 3 concurrent treatment procedures (airflow, relaxatio, biofeedback) followed by a 4th treatment (discriminative stimulus control) and be post-tested. Grp. 1 will receive extensive EMG biofeedback monitoring, training, and practice. Grp.2 will receive the same treatment as Grp. 1, but will receive no auditory and visual feedback of performance. Grp. 3 will receive no EMG viofeedback training or monitoring, but will receive the aame amount of time in activities similar to Grps. 1 and 2.

(17) Progress: During this fiscal year, 10 subjects in Grp. 1 have completed the specified treatment program and have been followed on a regular basis since release from treatment. Group 3 SS will be the next subjects to be run.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/204 (3) Status: Completed

(4) Title: Evaluation of Treatment Methods for Extravasation of Chemotherapeutic Agents

(5) Start Date: August 1982	(6) Est Compl Date: July 1983
(7) Principal Investigator: Timothy Loth, MD CPT, MC	(8) Facility: FAMC
(9) Dept/Svc: Surgery/Orthopedic	(10) Assoc Investigators: William W. Eversmann, Jr., MD COL, MC
(11) Key Words: chemotherapeutic extravasation necrosis	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: July 83 b. Review Results: Completed

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: To evaluate and compare various methods of treating experimental chemotherapeutic agent extravasations.

(16) Technical Approach: A rat model was used in which a number of vesicants were injected into thin skin and treated using surgical debridement or conventional antidotes. One study on each animal served as a control.

(17) Progress: This study is completed.

Publications: none

Presentations:

1. Loth, T.S. and Eversmann, W.W.: Evaluation of Treatment Methods for the Extravasation of Chemotherapeutic Agents: A Comparative Study. Presented: Third Annual Military Current Concepts in Hem/Onc Meeting, San Antonio, TX, 1983.

2. Loth, T.S. and Eversmann, W.W.: Evaluation of Treatment Methods for the Extravasation of Chemotherapeutic Agents: A Comparative Study. Presented: Joseph E. Baugh Resident Competition, Washington, D.C., 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/205 (3) Status: ongoing

(4) Title:

The effects of immediate and staged repair of the torn anterior cruciate (cranial cruciate) ligament in dogs as evaluated by serial arthroscopic examinations

(5) Start Date: April 1983	(6) Est Compl Date: April 1984
(7) Principal Investigator: Stephen W. Houseworth, CPT, MC	(8) Facility: FAMC
(9) Dept/Svc: Orthopedic/Surgery	(10) Assoc Investigators: Robert E. Eilert, M.D. Cheryl K. Smith, DVM, CPT
(11) Key Words: Anterior Cruciate Ligament and Arthroscopy	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: N/A b. Review Results: N/A

c. Number of Subjects Enrolled During Reporting Period: 12

d. Total Number of Subjects Enrolled to Date: 12

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: The objective of this study is to evaluate arthroscopically the effects of staged anterior cruciate ligament repairs with augumentation in the dog knee (stifle). Specific attention will be directed at the onset and progression of degenerative changes within the joint.

(16) Technical Approach: 12 dogs have been divided into 3 groups of 4 dogs one knee joint of each dog will be used as a control and the other for an operative procedure. 3 of the dogs will have a repair of an anterior cruciate ligament with augumentation, 3 dogs with have repair of the anterior cruciate ligament with augumentation one month following the initial section of the anterior cruciate ligament and group 3 will have augumented repairs of the anterior cruciate ligament 3 months following initial section of the ligament. All dogs will have arthroscopic examination at 6, 8, 12, 16, 32 and 40 weeks, and will be sacrificed.

(17) Progress: To date all 12 dogs have been operated on and have been followed arthroscopically with photographs and the project is going along without problems. Currently it is too early to make any specific statement as to degenerative changes relative to anterior cruciate ligament repair. Plan is at 40 weeks following initial surgery that all dogs will be sacrificed and the knee will be examined. On 25 Oct 83 it is anticipated that the dogs will be rearthroscoped and evaluated once again.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/200 (3) Status: ongoing

(4) Title:

Evaluation of a Nonabsorbable Anterior Cruciate Ligament Prosthesis

(5) Start Date: May 83	(6) Est Compl Date: May 84
(7) Principal Investigator: Walton W. Curl, LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Orthopedic/Surgery	(10) Assoc Investigators: Ricky Wilkerson, CPT, MC
(11) Key Words: Anterior Cruciate Ligament and Prosthesis	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: N/A b. Review Results: N/A

c. Number of Subjects Enrolled During Reporting Period: 12

d. Total Number of Subjects Enrolled to Date: 12

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: To determine efficacy of repairing a ruptured anterior cruciate ligament and stinting this repair with an artificial ligament. To determine the biomechanical and histologic parameters of the ligament/prosthetic complex at 6 months and 1 year. To determine the effect of an intra-articular prosthetic device on the articulating cartilage and surrounding synovial tissues within the knee.

(16) Technical Approach: 12 mongrel dogs initially had their left stifle joint used as a control, arthrotomy and rupture of the anterior cruciate ligament, the right knee underwent rupture of the anterior cruciate ligament and augumentation using the patella tendon with supplementation using an artificial ligament prosthesis. Originally the intent was to sacrifice 6 of the dogs at 6 months and 6 of the dogs at 12 months and then study the synovium and cruciate ligament complex both histologically and histochemically.

(17) Progress: The 12 dogs were operated on in June 1983 subsequently at 6 week follow up examination 3 of the dogs were noted to have subluxing and dislocated patellae and because this compromised the validity of the study they were sacrificed at 6 weeks and the specimens were sent the Howmedica Lab for further evaluation. The revised plan is to sacrifice 3 more dogs at 6 months and send their limbs to Howmedica Lab for evaluation and then maintain the remaining 6 dogs until 12 months and sacrifice them with the same type of examination. The limbs that were sent to Howmedica at 6 weeks are still undergoing evaluation and no conclusions can be made.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 83/200

SERVICE Orthopedic DEPARTMENT Surgery

None

PRESENTATIONS:

None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/201 (3) Status: Ongoing

(4) Title:

CT Diagnoses of Medial Meniscal Tears

(5) Start Date: 1 May 83	(6) Est Compl Date: 1 May 84
(7) Principal Investigator: CPT Ricky Wilkerson, MC LTC Walton W. Curl, MC CPT Marlene J. Severson, MC	(8) Facility: FAMC
(9) Dept/Svc: Orthopedic/Surgery	(10) Assoc Investigators: none
(11) Key Words: Medial meniscus Tears and CT Scan	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: N/A b. Review Results: N/A

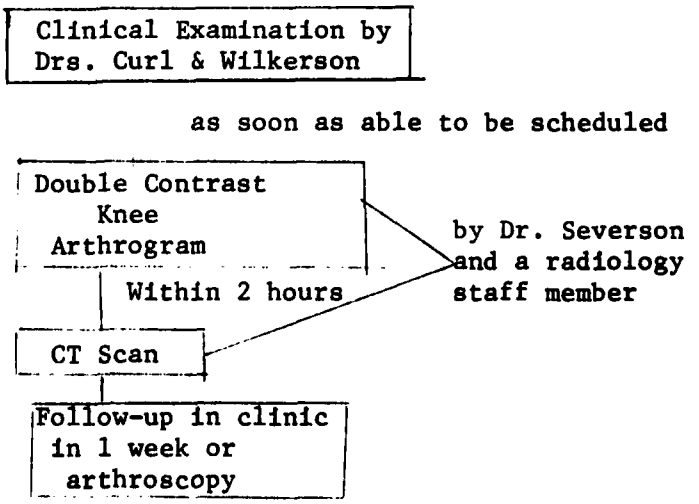
c. Number of Subjects Enrolled During Reporting Period: 5

d. Total Number of Subjects Enrolled to Date: 5

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: To evaluate the possible usefulness in diagnosis of medial meniscal tears of the knee using the CT scan and to compare it to the accuracy of the knee arthrogram. Subject population will consist of approximately 15 adult patients who on physical examination have suspected medial meniscal tears.

(16) Technical Approach:



(17) Progress: To date, 5 knees have been examined and arthroscoped. These 5 patients were all identified during fiscal year 83. Currently the results are equivocal, however, since only 5 patients have been done, then no conclusive results have been obtained. We are continuing with this protocol, anticipating at least 10 more patients over the next severaly months to include in the protocol.

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Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/202 (3) Status: Ongoing

(4) Title:

Microbiology of Eyebank Eyes Taken from Septic Donors

(5) Start Date: October 1983	(6) Est Compl Date: Unknown
(7) Principal Investigator: Andrew J. Cottingham, Jr., M.D.	(8) Facility: FAMC
(9) Dept/Svc: Surgery/Ophthalmology	(10) Assoc Investigators: Douglas A. Freeley, M.D., LTC, MC Calvin E. Mein, M.D., MAJ, MC Floyd M. Cornell, M.D., MAJ, MC Ronald R. Holweger, M.D., MAJ, MC John A. McCubbin, M.D., CPT, MC (cont'd)
(11) Key Words: Eye Bank Septic Donor eyes Corneal transplant	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 0

d. Total Number of Subjects Enrolled to Date: 0

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

N/A

(15) Study Objective:

The questions this project shall attempt to answer are:

1). What is the incidence of positive cultures from various compartments of eyes taken from potentially bacteremic or septic donors?

2). What donor factors affect the incidence of positive cultures or species of organism(s) cultured?

3). Does the manner in which the tissues is handled or stored affect the incidence of positive cultures?

4). What is the origin of the bacteria cultured from the cornea and within the eye? Does it correlate with organisms known or suspected to be present systemically?

(16) Technical Approach:

Eyes from septic death cases and control non-septic death cases are cultured (one eye immediately and one after storage at 4°C for 48 hours). The culturing techniques are accomplished in multiple ways.

(17) Progress:

Due to personnel rotation we have been unable to start this project - the project should begin this month (FY 84).

(10)continued from above:

William R. Wilson, M.D., CPT, MC
Anthony R. Truxal, M.D., CPT, MC
Ricardo J. Ramirez, M.D., CPT, MC

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/203 (3) Status: Ongoing

(4) Title: **Laser Trabeculoplasty: Correlation of the Number of Laser Applications to Short- and Long-Term Effects**

(5) Start Date: **April 1983**	(6) Est Compl Date: **April 1984**
(7) Principal Investigator: **CPT John A. McCubbin, MC** **MAJ William G. Carey, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Surgery/Ophthalmology**	(10) Assoc Investigators: **Ronald R. Holweger, MAJ, MC** **Thomas H. Mader, MAJ, MC** **William R. Wilson, CPT, MC**
(11) Key Words: **laser trabeculoplasty** **intraocular pressure** **trabecular meshwork**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 20

d. Total Number of Subjects Enrolled to Date: 20

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". 0

(15) Study Objective: **This study is designed to correlate the number of laser burns applied during laser trabeculoplasty in patients with simple chronic open angle increase in intraocular pressure.**

(16) Technical Approach: Selected patients will randomly be assigned the number of laser burns to be applied to each eye. Patients will be assigned either 10, 20, 30, or 40 burns in the inferior 180° of each eye. The patients will be followed during the immediate post-procedure period and closely monitored for complications and then followed for a period of one year at least to determine the long-term efficacy.

(17) Progress: A total of 40 eyes in 20 patients have been entered into the study, and Argon laser trabeculoplasties have been performed on these eyes. Three patients have returned to their original intraocular pressures or above, requiring additional medical control of their glaucoma. All patients have had a lowering of intraocular pressure during the initial months following the trabeculoplasty. Three subjects at or around 6 months after a steady pressure rise surpassed safe levels and required additional medication. These patients had the more advanced glaucoma going into the study. This is felt to reflect a worsening of the glaucoma and not secondary to the procedure.

CONTINUATION SHEET for Annual Progress Report 1983 Protocol No 83/203

DEPARTMENT: Surgery SERVICE: Ophthalmology

(17) Progress: continued

Low-dose laser trabeculoplasty seems to be effective in the treatment of open angle glaucoma. Risks remain minimal as no complications have occurred. Benefits are a lowering of the intraocular pressure. The rate of "failure" of the trabeculoplasty seems to reflect the rate of worsening of the glaucoma.

Publications and Presentations: none

CLINICAL INVESTIGATION

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 72/302 (3) Status: Ongoing

(4) Title: **Comparison of Metabolic and Functional Changes in Defects of Platelet Function**

(5) Start Date: **1972**	(6) Est Compl Date: **1984**
(7) Principal Investigator: **Donald G. Corby, M.D.,COL,MC,**	(8) Facility: FAMC
(9) Dept/Svc: **DCI/Biochemistry Svc**	(10) Assoc Investigators: **T.P. O'Barr, Ph.D., DAC**
(11) Key Words: **platelet function newborn**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 11/82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To correlate biochemical and functional parameters to gain a better understanding of the pathophysiology of the disorders of platelet function.**

(16) Technical Approach:

Subjects: In most part, this study will deal with the further investigation of the platelet "defect" found in the normal newborn infant. However, since the techniques of studying the biochemical aspects of platelet function developed in previous studies permit the thorough evaluation of qualitative platelet disorders in older children and adults, the protocol is also intended to cover the diagnostic evaluation of patients with functional platelet syndromes associated with the "hemorrhagic state".

Platelet Function Studies: When indicated clinically, platelet counts, bleeding times, platelet adhesion, and whole blood and PRP aggregation in response to ADP, collagen, epinephrine, or ristocetin will be performed in the Coagulation Section, Department of Pathology or the Biochemistry Service, Department of Clinical Investigation.

(16) Technical Approach (cont'd):

Biochemical Studies: Assessment of the content and release of the content of the platelet's subcellular storage organelles (alpha and dense granules) and evaluation of the Platelet membrane will include, but not be limited to the following:

a. Electron microscopy and mepacrine staining of dense granules.
b. Content of platelet factor 4 and B-thromboglobulin activity in the alpha granules.
c. Production of platelet-derived growth factor by ^{3}H-thyamide incorporation in 3T3 mouse fibroblasts by platelet lysates.
d. Measurement of secretable acid hydrolases (B-glucuronidase, B-galactosidase, and membrane P-nitrophenyl phosphatase) activities.
e. Membrane glycoprotein and phospholipid content.
f. Release of arachidonate from membrane phospholipids by phospholipase C and diglyceride lipase.
g. Mobilization of Ca++.
h. Other studies as they become available.

(17) Progress: Due to the need to assign personnel for other approved protocols and shortage of personnel due to transfers and resignations, the extent of work during the past FY has concentrated on the development of assays dealing with measurement of the release of arachidonate from membrane phospholipids by phospholipase C and diglyceride lipase.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 72/302

DEPARTMENT of Clinical Investigation

(1) Corby, D.G., Shigeta, F.H., Greene, H.L., and Stifel, F.B.: Platelet Dysfunction in Glycogen Storage Disease Type I (GSDI): Reversal with Total Parenteral Alimentation (TPA). (Abst.) Clin. Res. 21:304, 1973.

(2) Corby, D.G., Preston, K.A., Shigeta, F.H., O'Barr, T.P., and Zuck, T.F.: Adverse Effect of Gel Filtration on the Adenine Nucleotides of Human Platelets. (Abst., P. 107), III Congress, International Society on Thrombosis Hemostasis (Vienna, Austria), June 1973.

(3) Corby, D.G., (Intr. by Wm. E. Hathaway): Mechanism of Platelet Dysfunction in Newborn Infants. J. Ped. Res., Vol. 8, No. 4, April 1974.

(4) Corby, D.G., Preston, K.A., O'Barr, T.P.: Adverse Effect of Gel Filtration on the Function of Human Platelets. Proceedings of the Society for Experimental Biology and Medicine, 146:96-98, 1974.

(5) Corby, D.G., Putnam, C.W., Greene, H.L.: Impaired Platelet Function in Glucose-6-Phosphatase Deficiency. The J. Ped., 85:71-76, July 1974.

(6) Corby, D.G., and Zuck, T.F.: Newborn Platelet Dysfunction: A Storage Pool and Release Defect. Thrombosis and Haemostasis, 36:200-207, 1976.

(7) Corby, D.G., Goad, W.C., Barber, J., and O'Barr, T.P.: Evaluation of Cyclo-Oxygenase Pathway in Platelets of the Newborn, Thrombosis and Haemostasis (Stuttgart), 38:35, 1977 (Abstract).

(8) Corby, D.G., O'Barr, T.P.: Decrease in -Adrenergic Binding Sites in Newborn Platelets: Cause of Abnormal Response to Epinephrine? Blood, 52:161, 1978.

(9) Corby, D.G.: Aspirin in Pregnancy: Maternal and Fetal Effects. Pediatrics, 62:930, 1978.

(10) Corby, D.G., O'Barr, T.P.: Decreased Alpha-Adrenergic Receptors in Newborn Platelets: Cause of Abnormal Response to Epinephrine. Dev Pharmacol & Ther, 2:215-225, 1981.

(11) Corby, D.G., O'Barr, T.P.: Neonatal Platelet Function: A Membrane-Related Phenomenon. Haemostasis, 10(4):177-232, 1981.

Publications for FY 83 Annual Progress Report (72/302) - continued

(12) Corby, D.G., O'Barr, T.P.: Newborn Platelet Function. Chapter in Book "Acquired Bleeding Disorders in Childhood". Masson Publ, pages 31-37, 1981.

(13) Corby, D.G., O'Barr, T.P., and Swanson, E.E.: Evidence for a Deficiency of Alpha-Granule Proteins in the Platelets of Newborn Infants. Soc Ped Res, May 1983.

Presentations:

(1) Corby, D.G., Shigeta, F.H., Greene, H.L., and Stifel, F.B.: Platelet Dysfunction in Glycogen Storage Disease Type I (GSDI): Reversal with Total Parenteral Alimentation (TPA). Presented: Western Society for Pediatric Research, Carmel, California, February 1973.

(2) Corby, D.G., Preston, K.A., Shigeta, F.H., O'Barr, T.P., and Zuck, T.F.: Adverse Effect of Gel Filtration on the Adenine Nucleotides of Human Platelets. Presented: III Congress, International Society on Thrombosis and Hemostasis, Vienna, Austria, June 1973.

(3) Corby, D.G.: Mechanism of Platelet Dysfunction in Newborn Infants, Society for Pediatric Research, APS-SPR, Washington, D.C., May 1974.

(4) Corby, D.G., Goad, W.C., Barber, J., and O'Barr, T.P.: Evaluation of Cyclo-Oxygenase Pathway in Platelets of the Newborn. Presented: VIth International Congress on Thrombosis and Haemostasis, Philadelphia, Pennsylvania, June 1977.

(5) Corby, D.G. and O'Barr, T.P.: Decreased - Adrenergic Receptors in Newborn Platelets: Cause of Abnormal Response to Epinephrine? Presented: VIIth Congress International Society of Thrombosis and Haemostasis, London, England, 1979.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 77/300 (3) Status: Ongoing

(4) Title: Immunologic Disorders in Children and Adults: 1. Correlation of Immune Functions in the Immunodeficiency State. II. Correlation of Immune Functions of Leukemia and other Childhood Malignancies.

(5) Start Date: 1 Oct 77	(6) Est Compl Date: Open ended
(7) Principal Investigator: R. Stephen Whiteaker, Ph.D. CPT, MSC	(8) Facility: FAMC
(9) Dept/Svc: DCI/Immunology Svc	(10) Assoc Investigators: Donald G. Corby, M.D. COL, MC
(11) Key Words: immunologic disorders	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 141

d. Total Number of Subjects Enrolled to Date: 718

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: Existing specialized immuno-chemical procedures will be consolidated into a registered protocol for use, on a consultative basis, by the hospital staff.

(16) Technical Approach: A clinical laboratory immunology consultation service has been established. Main emphasis is performance and evaluation of specialized immuno-chemical tests, for training house-staff personnel and consultative support of hospital. The major areas of studies include humoral and cellular immunity and leukocyte function evaluation. Patients are selected on the basis of severity of recurrent infections, clinical immunodeficiency state, lack of response to medical management and availability of Department of Clinical Investigation for laboratory evaluations for patient care.

(17) Progress: A total of 141 patients were evaluated on a consultative basis for immunologic disorders. During this period seven physician house-staff personnel were also trained in laboratory clinical immunology procedures. Patients Studied: 37 in the area of serum protein gammapathies, 43 in the area of cell-mediated function, and 61 in the area of combined humoral-cellular function. Subjects with indicated major findings were as follows: 1) Humoral immunologic disorders -serum protein profile evaluations: 5 cryoglobulinemias, 18 serum protein gammopathies, 7 immunoglobulin disorders (heavy or light chain or benign spike), 5 hypogammaglobulinemias, (cont'd)

CONTINUATION SHEET for FY 83 ANNUAL PROGRESS REPORT Proto. No.: 77/300

(17) Progress: cont'd

12 hypergammaglobulinemias, 3 complement abnormalities; II) Cellular immunologic disorders - 104 lymphocyte transformations, of these 9,5, and 2 patients were recorded suppressed to PHA, PWM, and candida stimulations respectively, 57 T-lymphocyte enumerations with 4 patients recorded as low T-lymphocyte percentages, 57 B-lymphocyte enumerations with 0 patients recorded as abnormal, 32 NBT evaluations with 4 patients recorded as abnormal.

Publications: none

Presentations:

1. Brown, G.L. and Heggers, J.: Medical Mycology: Assessment of Bacteriologic and Seroligic Parameters of Clinically-important Mycoses Normal and Immunologic Comprised Host. Presented: American Medical Technologist Educational Seminars, Denver, CO, July 1979.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/300 (3) Status: Ongoing

(4) Title: A Study of the Hormone-dependent Growth of Human Mammary Tumors In Vitro

(5) Start Date: 1979	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Charles F. Ferris, Ph.D.,CPT,MSC	(8) Facility: FAMC
(9) Dept/Svc: DCI/Cell Physiology	(10) Assoc Investigators: John W. Harbell, Ph.D.,CPT,MSC Donald B. Mercill, B.S., DAC SP5 Norman R. Jones, B.S. SP5 Leslie C. Kramer, B.S.
(11) Key Words: breast tumors organ culture	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: To examine the hormone requirements for the growth of human mammary tumors using explant organ culture.

(16) Technical Approach: Tissue samples are obtained from biopsy or mastectomy specimens. Each sample is cut into many small pieces and distributed, for culture, in a battery of hormone combinations. Replicate samples from each hormone combination are subjected to the appropriate radiolabelled precursor to determine DNA, RNA, and protein synthesis. Histology and macromolecular synthesis measure response.

(17) Progress: To date, over 50 samples of normal, hyperplastic and malignant human breast tissue have been studied. The interaction of insulin with ovarian and pituaitary hormones has been the major thrust thus far. As expected from rodent studies, normal human mammary epithelium required insulin to undergo maximum proliferation when stimulated by other mammatrophic hormones. However, even malignant epithelium which was apparently insensitive to the other mammatrophic hormones also showed a marked insulin dependence. Due to the small number of human carcinomas available, corollary experiments with rodent tissue were completed to characterize the biochemistry of this dependence. Normal, benign, and malignant murine mammary epithelia were studied.

CONTINUATION SHEET of FY 83 Annual Progress Report Proto No. 79/300

(17) Progress: cont'd-

Each required insulin while only the normal and benign required ovarian and pituitary hormones. Assessment of DNA, RNA, and protein synthesis as well as glucose utilization demonstrated the DNA synthesis was the most sensitive to the insulin concentration with the other parameters markedly less so. Autoradiographs prepared from human tissue samples are being analyzed as work on other protocols permits.

PUBLICATIONS:

1. Harbell, J.W.: Insulin Action on Normal and Transformed GR/A Strain Mouse Mammary Tissues. In Vitro 16(3):247, 1980.

PRESENTATIONS:

1. Harbell, J.W.: Insulin Action on Normal and Transformed GR/A Mouse Mammary Tissues. Presented: 31st Annual Meeting, Tissue Culture Association, St. Louis, MO, June 4, 1980.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/301 (3) Status: Ongoing

(4) Title: **Basic Studies to Hasten Recovery from or Help Prevent Bone Injury.**

(5) Start Date: **1979**	(6) Est Compl Date: **October 1984**
(7) Principal Investigator: **David T. Zolock, MAJ, MSC**	(8) Facility: **FAMC**
(9) Dept/Svc: **DCI/Biochemistry Svc**	(10) Assoc Investigators: **Daniel D. Bikle, M.D., Ph.D. Veterans Administration Med. Ctr. San Francisco, CA Elwyn Chadwick, SP6**
(11) Key Words: **vitamin D, calcium, bone, intestine, calcium binding protein**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To reduce the incidence of fracture wounds and to reduce the time involved to heal fracture wounds by increasing the absorption and retention of calcium and phosphorus through nutritional and medical therapeutic improvements.**

(16) Technical Approach: Since bone mineralization is indirectly regulated by intestinal absorption, the bone as well as the intestinal responses to various therapeutic measure, will be studied. In general, the animal of choice will be chicks which will be fed a vitamin D deficient diet containing 0.43% phosphorus for approximately three weeks.

(17) Progress: An experiment was designed to determine the effects of changes in the essential fatty acid content of the intestine on the 1,25-dihydrocholeciferol (1,25-DHCC) stimulated increase of calcium transport and calcium binding protein (CaBP). Chicks were fed a rachitic diet which did (EFA) or did not contain essential fatty acids (-EFA). The results indicated a similar increase in calcium transport across the intestine in both the EFA and -EFA groups receiving 1,25-DHCC for three hours. No difference in CaBP existed between the two groups at any of the time (cont'd)

(17) Progress: cont'd

points (0 to 18 hrs) after administering 1,25-DHCC. The phosphatidylcholine (and its linoleic content) in the brush border membranes increased to a similar extent in both the EFA and -EFA groups receiving 1,25-DHCC and that this change occurs even at the expense of sequestering linoleic from other deprived cells.

An experiment was designed to determine which cells on the intestinal villus were responsible for the 1,25-DHCC dependent increase in calcium transport and in CaBP. The cells were eluted off the villus starting at the top of the villus (older cells). The results showed the calcium uptake was greatest in the brush border membrane vessicles for the cells eluted from the distall villus and least in the cells from the proximal. Alkaline phosphotase activity corresponded with the calcium uptake and CaBP corresponded oppositely with more protein in the proximal cells. No CaBP could be detected in the brush border membrane vessicles even with methods using heat, salt, and surfactants. These results support our hypothesis that CaBP is not directly involved as a carry of calcium across the cell and 1,25-DHCC acts directly on the membranes of the cells. Apparently, 1,25-DHCC acts on the intestinal cell by various mechanisms which vary on the cell's age or location on the villus.

Publications:

1. Zolock, David T., Morrissey, Robert L., and Bikle, Daniel D.: Meaning of Non-parallel 1,25$(OH)_2D_3$ Mediated Response Relationships in Intestine and Bone to Dose and Time in Vitamin D; Biochemical, Chemical and Clinical Aspects Related to Calcium Metabolism. Walter DeGruter, Inc., New York, 1979.

2. Bikle, Daniel D., Morrissey, Robert L., Zolock, David T. and Herman, R.H.: Stimulation of Chick Gut Alkaline Phosphatase Activity by Actinomycin D and 1,25-dihyroxyvitamin D_3: Evidence for Independent Mechanisms. J Lab Clin Med 94:88-94, 1979.

3. Bikle, Daniel D., Morrissey, Robert L., and Zolock, David T.: The Mechanism of Action of Vitamin D in the Intestine. Am J Clin Nutr 23:2322-2338, 1979.

4. Morrissey, Robert L., Zolock, David T., Mellick, P.W. and Bikle, Daniel D.: Influence of Cycloheximide and 1,24-dihydroxyvitamin D_3 on Mitochondrial and Vesicle Mineralization in the Intestine. Cell Calcium 1:69-79, 1980.

Publications: (cont'd)

5. Bikle, Daniel D., Askew, E.W., Zolock, David T., Morrissey, Robert L. and Herman R.H.: Calcium Accumulation by Chick Intestinal Mitochondria: Regulation by Vitamin D_3 and 1,25-dihydroxyvitamin D_3. Biochem Pharmacol 89"63-142, 1981.

6. Bikle, Daniel D., Empson, R.N., Morrissey, Robert L., Zolock, David T., Bucci, T.J., Herman, R.H. and Pechet, M.M.: Effect of 1 alpha-hydroxyvitamin D_3 on the Rachitic Chick Intestines: A Comparison to the Effects of 1,12-dihyroxyvitamin D_3. Cal Tiss Int 32:9-17, 1980.

7. Bikle, Daniel D., Morrissey, Robert L., Zolock, David T. and Rasmussen, H.: The Intestinal Response to Vitamin D. Rev Physiol Biochem Pharmacol 89:63-142, 1981.

8. Bikle, Daniel D., Zolock, David T. and Morrissey, Robert L.: Action of Vitamin D on Intestinal Calcium Transport. Annals NY Academy of Sciences 372:481-501, 1981.

9. Charles, M.A., Tirunagura, P., Zolock, David T. and Morrissey, Robert L.: Duodenal Calcium Transport and Calcium Binding Protein Levels in Experimental Diabetes Mellitus. Mineral Electrolyte Metab 5:15-22,1981.

10. Bikle, Daniel D., Peck, C.C., Holford, N.H.S., Zolock, David T. and Morrissey, Robert L.: Pharmacokinetics and Pharmacodynamics of 1,25-dihyroxyvitamin D_3 in the Chick. Endocrin 111:939-946, 1982.

11. Zolock, D.T., Chadwick, E.W.: Comparison Study on the Effects of Vitamin D_3 Metabolites on Calcium Metabolism Provides Further Insight into Vitamin D Mechanisms of Action in the Intestine and Bone. Fed Proc 42:3250, 1983. (C)

12. Kreutter, D., Matsumoto, T., Peckham, R., Zaivalick, K., Wen, W.H., Zolock, D.T., Rasmussen, H.: The Effect of Essential Fatty Acid Deficiency on the Stimulation of Intestinal Calcium Transport by 1,25-Dihydroxyvitamin D_3. J Biol Chem 258(8):4977-81, 1983. (C)

Presentations:

1. Zolock, David T., Morrissey, Robert L. and Bikle, Daniel D.: Meaning of Non-parallel 1,25 $(OH)_2$ D_3 Mediated Response Relationships in Intestine and Bone to Dose and Time. Presented: Proceedings of the Fourth Workshop on Vitamin D, Berlin (West) Germany, February 1979.

2. Zolock, D.T., Chadwick, E.W.: Comparison Study on the Effect of Vitamin D_3 Metabolites on Calcium Metabolism Provides Further Insight into Vitamin D Mechanisms of Action in the Intestine and Bone. Presented: Fed of Amer Soc for Experimental Biol, Chicago, IL, April 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/302 (3) Status: Ongoing

(4) Title: **Rapid Detection of Bacterial Antigens in Patient Specimens Using Counterimmunoelectrophoresis (CIE)**

(5) Start Date: 1 January 1981	(6) Est Compl Date: 1 January 1985
(7) Principal Investigator: **Pari L. Morse, B.S., DAC**	(8) Facility: FAMC
(9) Dept/Svc: **DCI/Microbiology Svc**	(10) Assoc Investigators: **Donald D. Paine, B.S., DAC** **Paul G. Engelkirk, Ph.D., LTC,MSC**
(11) Key Words: **bacterial antigens** **counterimmunoelectrophoresis**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Dec 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To develop laboratory procedures using CIE which will detect bacterial antigens in patient's specimens within a few hours of receipt.**

(16) Technical Approach: Using commercial antisera and published methodologies, we developed the capability of performing CIE procedures for the detection of bacterial antigens in clinical specimens. We then evaluated these procedures as a rapid adjunct to the bacteriological procedures currently being used by the FAMC clinical Microbiology Laboratory for the diagnosis of bacterial diseases.

(17) Progress:

a. Bacterial antigen detection: During the period 1 Sep 82 to 1 Nov 83, a total of 13 specimens from 11 patients were tested. None gave positive results for S. pneumococcus, H. influenzae type b, or Group B Strep antigen. On 1 Nov 82 the Microbiology Service, Department of Pathology assumed responsibility for this procedure.

b. Clostridium difficile toxin detection: During the period 1 Mar 83 to 1 Sep 83, a total of 42 fecal specimens from 39 patients were tested for C. difficile toxin. Thirty-one (74%) gave positive results. This protocol remains in an active status to further evaluate the diagnostic value of a CIE procedure for the detection of C. difficile toxin.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/303 (3) Status: Ongoing

(4) Title: Study of Sensitivity of Tumors to Chemotherapy

(5) Start Date: December 1980	(6) Est Compl Date: indefinite
(7) Principal Investigator: Charles F. Ferris, Ph.D.,CPT,MSC Arlene J. Zaloznik, M.D.,MAJ,MC Nicholas J. DiBella, M.D.,COL,MC	(8) Facility: FAMC
(9) Dept/Svc: DCI/Cell Physiology	(10) Assoc Investigators: John W. Harbell, Ph.D., CPT, MSC SP5 Norman R. JOnes SP5 Leslie Kramer
(11) Key Words: chemotherapy in vitro, in vivo tumor cell	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Jan 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: a) To perform in vitro chemotherapeutic sensitivity testing using tumor cell systems. b) To correlate in vitro chemotherapeutic sensitivity testing results with in vivo chemotherapeutic responses. c) To provide better patient care, i.e., better tumor cell kill, by using in vitro chemotherapeutic sensitivity testing. d) To study alternative therapeutic regimes for various types of solid tumors using the cell lines produced in part a.

(16) Technical Approach: Human tumor cell lines are established in monolayer culture. After purification and cell type varification, replicate cultures are subjected to physiological concentrations of chemotherapeutic agents. Efficacy is determined through measurement of macromolecular synthesis labeling index and cell loss. Correlations between in vitro parameters and patient responses are then established.

(17) Progress: To date, 900 primary cultures from over 196 samples have been processed. Retrospective comparison of in vivo and in vitro responses have been encouraging though firm statistical correlation will require more samples from tumors which respond to chemotherapy. Over 60 cell lines have been produced. Adjunct subprojects using the cell lines and assay system have been completed and presented at national meetings.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 80/303

SERVICE: Cell Physiology DEPARTMENT of Clinical Investigation

1. Moore, G.E., Harbell, J.W., Woods, L.K., Morgan, R.T., and Semple, T.U.: RPMI 8226, a Human Myeloma Cell Line: an Update. (Abst) Proceedings of the American Association for Cancer Research 23:33, 1982.

2. Harbell, J.W. and DiBella, N.J.: Studies on the Interaction of Tetrahydrocannabinol (THC) with Chemotherapeutic Agents Against Human Tumors In Vitro. (Abst) Proceedings of the American Association for Cancer Research 23:226, 1982.

3. Harbell, J.W., Mercill, D.B., Jones, N.R. and Woods, L.K.: Establishment of a Human Leiomyosarcoma Cell Line. (Abst) In Vitro 18(3):295, 1982.

4. Harbell, J.W., Papkoff, J.S. and Daniel, C.W.: Hormone Requirements of the Pregnancy-Dependent Mammary Tumor of GR/A Mice: An In Vitro Study. J Natl Cancer Inst 69(6):1391-1402, December 1982.

5. Harbell, J.W., DiBella, N.J., Jones, L.E., Kramer, L.C., and Mercill, D.B.: Assessment of Synergism Between Hyperthermia (HT) and Chemotherapy (CT) Against Human Melanoma Cell Lines In Vitro. Pro Amer Assoc for Can Res 24:310, 1983 (Abst).

6. Harbell, J.W., Mercill, D.B. and Woods, L.K.: Use of Athymic Nude Mice to Establish Human Tumor Cell Lines. In Vitro 19(3):275, March 1983.

7. Correll, L.L., Neilsen, L.N., Kelleher, P.J., Harbell, J.W. and Minden, P.: Enhanced Immunogenicity of Line-10 Guinea Pig Hepatocarcinoma Cells after Culture. Accepted for Publication in J Natl Cancer Inst, 1983.

PRESENTATIONS for FY 83 Annual Progress Report Proto No.: 80/303

SERVICE: Cell Physiology DEPARTMENT: of Clinical Investigation

1. Mercill, D.B., Jones, N.R., and Harbell, J.W.: Distilled Water Lavage to Kill Human Tumor Cells: an In Vitro Evaluation of a Traditional Surgical Technique. Presented: Society of Armed Forces Medical Laboratory Scientists Tri-services Annual Meeting, Reno, Nevada, March 1982.

2. Harbell, J.W. and DiBella, N.J.: Studies of the Interaction of Tetrahydrocannabinol (THC) with Chemotherapeutic Agents Against Human Tumors In Vitro. Presented: American Association for Cancer Research, St. Louis, MO, May 1982.

3. Moore, G.E., Harbell, J.W., Woods, L.K., Morgan R.T., and Semple, T.U.: RPMI 8226, a Human Myeloma Cell Line: an Update. Presented: American Association for Cancer Research, St. Louis, MO, April 1982.

4. Harbell, J.W., Mercill, D.B., Jones, N.R., and Woods, L.K.: Establishment of a Human Leiomyosarcoma Cell Line. Presented: Tissue Culture Association, San Diego, CA, June 1982.

5. Harbell, J.W., DiBella, N.J., Jones, L.E., Kramer, L.C. and Mercill, D.B.: Assessment of Synergism Between Hyperthermia (HT) and Chemotherapy (CT) Against Human Melanoma Cell Lines In Vitro. Presented: American Association for Cancer Research, San Diego, CA, May 1983.

6. DiBella, N.J. and Harbell, J.W.: Interaction of Chemotherapy (CT) and Hyperthermia (HT). Presented: Triservices Medical Oncology Meeting, San Antonio, TX, 1983.

7. Harbell, J.W., Mercill, D.B. and Woods, L.K.: Use of Athymic Nude Mice to Establish Human Tumor Cell Lines. Presented: Tissue Culture Association Annual Meeting, Orlando, FL, June 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/302 (3) Status: Ongoing

(4) Title: Induction of Cerebellar Hypoplasia in Pups by Intrauterine Inoculation of Canine Parvovirus

(5) Start Date: Sep 1982	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Albert H. McCullen, D.V.M. Captain, VC	(8) Facility: FAMC
(9) Dept/Svc: DCI/Animal Res Svc	(10) Assoc Investigators: Charles F. Ferris, Ph.D., CPT, MSC SP5 Leslie C. Kramer
(11) Key Words: canine parvovirus cerebellar hypoplasia	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jun 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: To determine if canine parvovirus will induce cerebellar hypoplasia in puppies as the feline parvovirus does in kittens.

(16) Technical Approach: Puppies will be taken from the bitches at birth to prevent ingestion of colostrum and fed a commercially available puppy formula. The pups will be divided into four groups. One group of pups will be injected with 0.5 ml of virus preparation intraperitoneally and one group will be injected intracerebrally. Control pups will be inoculated with 0.5 ml of saline either IP or IC. Pups will then be euthanized at three weeks of age with an overdose of halothane anesthesia. Tissues will be taken for histopathologic examination to a veterinary pathologist.

(17) Progress: Experimental procedures have been completed on the project. We are currently awaiting receipt of histopathological evaluation of brain tissue from Dr. Scott at the University of Missouri.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/303 (3) Status: Terminated.

(4) Title:
Use of Urinary Counterimmunoelectrophoresis (CIE) to Detect Occult Bacteremia in Young Children

(5) Start Date: 1 November 1981	(6) Est Compl Date: 1 June 1983
(7) Principal Investigator: Pari L. Morse, GS-9 Leroy Graham, CPT, MC	(8) Facility: FAMC
(9) Dept/Svc: Pediatrics/DCI	(10) Assoc Investigators: E.N. Squire, MAJ, MC P.G. Engelkirk, LTC, MSC B.J. Anders D. Moffitt, MAJ, MC
(11) Key Words: URINARY CIE	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Jun 83 b. Review Results: Terminated
c. Number of Subjects Enrolled During Reporting Period: NA
d. Total Number of Subjects Enrolled to Date: NA
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:
To evaluate the sensitivity of CIE for early detection of bacteremia among young children with high fever but no obvious etiology or treatable focus of infection, so that patients needing antibiotics and closest attention may be rapidly identified.

(16) Technical Approach:
To utilize previously reported and standardized CIE procedures.

(17) Progress:
This protocol was terminated on 1 June 1983 due to the impending PCS of two of the investigators, and the fact that no clinical specimens had been submitted for testing during the period 1 Oct 1982 and 1 June 1983.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/304 (3) Status: Ongoing

(4) Title: **Electron Microscopic Observations of the In Vitro Interactions Between Giardia lamblia Trophozoites and Peripheral Blood Cells and Peritoneal Cells of Small Laboratory Animals.**

(5) Start Date: **February 1982**

(6) Est Compl Date: **February 1985**

(7) Principal Investigator:
Paul G. Engelkirk, Ph.D.
LTC, MSC
Steven K. Koester, M.S.,GS9,DAC

(8) Facility: FAMC

(9) Dept/Svc: **DCI/Micro&Immunol Svcs**

(10) Assoc Investigators:
Donald D. Paine, GS11,DAC
Dick Wuerz, GS9, DAC

(11) Key Words:
Giardia lamblia
In Vitro interactions
Electron microscopy

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **Feb 83** b. Review Results: **ongoing**

c. Number of Subjects Enrolled During Reporting Period: **NA**

d. Total Number of Subjects Enrolled to Date: **NA**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective:

a) To determine the effects of anti-Giardia antibodies, complement and sensitized host cells on the phagocytosis and destruction of Giardia lamblia trophozoites in vitro.

b) To determine the time frame in which host phagocytic cells attach to and phagocytose live Giardia trophozoites in vitro.

c) To determine the host cell types that play a role in the phagocytosis of Giardia trophozoites in vitro.

(16) Technical Approach: Giardia lamblia trophozoites will be incubated with various combinations of host cells, anti-Giardia antibodies, and complement. Light microscopic, transmission electron microscopic, and scanning electron microscopic observations will be made to determine the type and extent of host cell/parasite interaction under the various experimental conditions.

(17) Progress: Five experiments have been conducted to date:

Expt #1 - Rabbits from protocol #81/101 were used; peritoneal cells v.s. trophozoites; TEM observations awaiting EM technician availability.

Expt #2 - Rabbits from protocol #81/101 were used; peripheral leukocytes v.s. trophozoites; TEM observations awaiting EM technician availability.

Expt #3 - Rats were used; peritoneal cells v.s. trophozoites; TEM, SEM and light microscopic observations have been completed; one manuscript has been submitted, and one manuscript and poster presentation are in progress.

(continued)

(17) Progress - continued

Expt #4 - Rats were used; repeat of Expt #3.
Expt #4 - Rats were used; peritoneal eosinophils and mast cells v.s. trophozoites; TEM and light microscopic observations are in progress at this time.

Publications:

1. Koester, S.K., and Engelkirk, P.G.: A Cover Slip Technique for Use in Studying In Vitro Interactions Between Giardia Trophozoites and Host Leukocytes by TEM, SEM and Light Microscopy. (Submitted for publication to Journal of Parasitology.)

Presentations:

1. Engelkirk, P.G.: Giardia Research at Fitzsimons Army Medical Center - an Overview. Presented: Rocky Mountain Branch of the American Society for Microbiology, Fort Collins, CO, October 1982.

2. Koester, S.K., Engelkirk, P.G., Paine, D.D., Wuerz, D.J., and Rothlauf, M.V.: In Vitro Interactions Between Giardia lamblia Trophozoites and Rat Peritoneal Cells. Presented: Rocky Mountain Branch of the American Society for Microbiology, Denver, CO, May 1983.

AD-A140 998 CLINICAL INVESTIGATION PROGRAM ANNUAL PROGRESS REPORT 3/3
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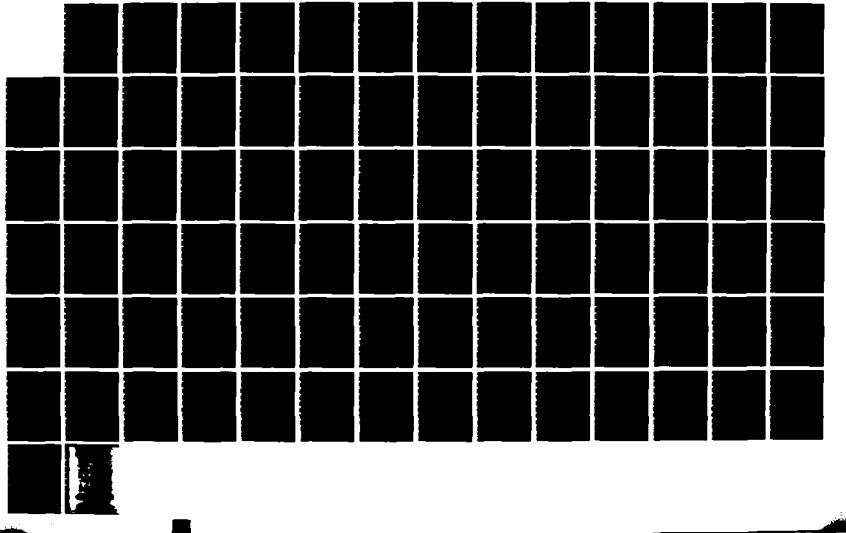

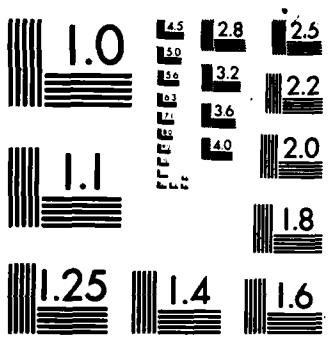

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/305 (3) Status: Ongoing

(4) Title: **Development of a Standardized Method for Minimum Inhibitory Concentration (MIC) Antibiotic Testing of Alpha-hemolytic Streptococci.**

(5) Start Date: 1 March 1982	(6) Est Compl Date: 1 March 1985
(7) Principal Investigator: **Pari L. Morse, DAC** **Clifford Butler, DAC**	(8) Facility: FAMC
(9) Dept/Svc: DCI/Pathology	(10) Assoc Investigators: **Paul G. Engelkirk, LTC, MSC** **Robert E. Holcomb, LTC, MSC**
(11) Key Words: **MIC** **alpha-hemolytic streptococci**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To develop a standardized, acceptable method for determining the MIC of alpha-hemolytic streptococci to antibiotics.**

(16) Technical Approach: This study was designed with 4 phases: 1) development of a modified MIC procedure for alpha-hemolytic streptococci, 2) testing of the modification on standard ATCC control organisms, 3) testing of 100+ alpha-hemolytic streptococci from routine cultures, and 4) further modification for "rough" forms of alpha-hemolytic streptococci.

(17) Progress: Phases 1 through 3 have been completed. Unfortunately, the Microbiology Service of the Department of Pathology has switched to a new type of MIC broth. Planning is under way to repeat earlier phases of this study with the new broth.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/306 (3) Status: Ongoing

(4) Title: **Histopathologic and Electron Microscopic Observations of the In Vitro Interactions Between Giardia lamblia trophozoites and the Small Intestinal Mucosa of a Variety of Small Laboratory Animals.**

(5) Start Date: 2 February 1983	(6) Est Compl Date: 2 February 1985
(7) Principal Investigator: **Paul G. Engelkirk, Ph.D.** **LTC, MSC** **Michael Daly, M.D.** **CPT, MC**	(8) Facility: FAMC
(9) Dept/Svc: DCI & Dept of Pathology	(10) Assoc Investigators: **Dick Wuerz, GS9, DAC**
(11) Key Words: **Giardia lamblia** **In Vivo interactions** **Electron microscopy**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: a. To determine whether the laboratory cultivated strain of Giardia lamblia being used in approved protocol #81/101 is capable of colonizing the small intestine of a variety of small laboratory animals (mice, rats, guinea pigs, rabbits).

b. To determine which of the small laboratory animals would be suitable as an animal model for this laboratory cultivated strain of G. lamblia.

c. To determine the amount of time required for adherence of the Giardia trophozoites to the intestinal mucosa of these laboratory animals.

d. To make light and electron microscopic observations of the in vivo interactions between G. lamblia trophozoites and intestinal defensive cells; to determine the types of cells involved in these interactions and their chronological sequence of appearance.

e. To work out the methodology for future ligated intestinal loop experiments involving animals which have been artifically immunized with G. lamblia antigen or which have recovered from G. lamblia infection.

(16) Technical Approach: Giardia lamblia trophozoites will be inoculated into ligated small intestinal loops of live small laboratory animals. After varying periods of time, sections of small intestinal mucosa will be examined by light and transmission electron microscopy to determine the degree of trophozoite colonization, and the type and extent of host cell/parasite interaction.

(17) Progress: To date, four experiments have been conducted:

Expt #1 - 4 Jan 82 - one rat - ligated loops.
Expt #2 - 21 Jan 82 - two rats - one had a Roux-en-Y; one had ligated loops.
Expt #3 - 28 Jan 82 - two guinea pigs - one had a Roux-en-Y; one had ligated loops.
Expt #4 - 1 Feb 82 - one rat and one guinea pig - each had a Roux-en-Y.

Little interaction has occurred between the inoculated trophozoites and the small intestinal mucosa, which may reflect 1) the inability of our laboratory strain to colonize, 2) use of unsuitable animal models, 3) unsuitable *in vivo* conditions, or other factors.

Dr. Michael Daly (Department of Pathology) has replaced Dr. Joseph Johns (Department of Medicine) as principal investigator. A feasibility study is currently in progress to evaluate the possibility of using intraperitoneal injections of trophozoites in place of intraintestinal inoculations. Following time intervals of 15,30,45 and 60 minutes, the peritoneal contents of inoculated rats were processed for light microscopic and TEM observations. The extent of host cell/parasite interaction observed *in vivo* will be compared to that observed *in vitro* (protocol #81/304). Should the results of this feasibility study show promise, a formal request for alteration of this protocol will be submitted to the FAMC Institutional Review Committee.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/300 (3) Status: Ongoing

(4) Title: **Studies of Immunologically Mediated Thrombocytopenia**

(5) Start Date: **May 1982**	(6) Est Compl Date: **April 1984**
(7) Principal Investigator: **R. Stephen Whiteaker, Ph.D.** **Captain, MSC**	(8) Facility: FAMC
(9) Dept/Svc: **DCI/Immunology Svc**	(10) Assoc Investigators: **Donald G. Corby, M.D., COL, MC** **Jean E. Howard, M.D., MAJ, MC**
(11) Key Words: **thrombocytopenia** **antiplatelet antibody** **immune complexes**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: May 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 15

d. Total Number of Subjects Enrolled to Date: 32

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To develop an assay to differentiate anti-platelet thrombocytopenia from "innocent bystander" thrombocytopenia.**

(16) Technical Approach: Patient serum is mixed with pooled type O platelets and platelet adsorbable IgG is detected and quantitated using an anti-IgG ELISA procedure.

(17) Progress: An enzyme-linked immunosorbent assay (ELISA) has been developed to detect platelet adsorbable IgG. This procedure will detect as little as 0.5 ug/ml of aggregated IgG in the absence of complement. Patients with idopathic thrombocytopenic purpura, post-transfusional purpura, and putative anti-Pl^{A}_{1} antibody have been shown to have elevated levels of platelet bindable IgG^{1} using this procedure.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 82/300

SERVICE: Immunology Service DEPARTMENT of Clinical Investigation

1. Whiteaker, R.S., Corby, D.G. and Howard, J.E.: Quantitation of Platelet Associated IgG (PAIgG) by a Microtiter Enzyme-Linked Immunosorbent Assay (ELISA). Ped Res 17(4):245A, 1983 (Abst).

2. Howard, J.E., Whiteaker, R.S. and Corby, D.G.: A Microtiter Enzyme-Linked Immunosorbent Assay (ELISA) for Quantitation of Platelet Bindable IgG (PBIgG). Blood 62(Suppl 1):244a, 1983 (abst).

PRESENTATIONS: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/301 (3) Status: Ongoing

(4) Title: **The Antigenic Evaluation of Axenically-Cultivated Giardia lamblia**

(5) Start Date: **DCI/Biochemistry**	(6) Est Compl Date: **1 July 1984**
(7) Principal Investigator: **Victor Feuerstein, M.S., DAC**	(8) Facility: FAMC
(9) Dept/Svc:	(10) Assoc Investigators: **P.B. Engelkirk, Ph.D., LTC, MSC T.B. Brewer, M.D., MAJ, MC R.S. Whiteaker, Ph.D., CPT, MSC**
(11) Key Words: **Giardia lamblia antigens**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jun 83 b. Review Results: ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 0
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To ellicidate and immunologically characterize the antigenic make-up of the trophozoites of axenically-cultivated Portland and NIH strain Giardia lamblia.**

(16) Technical Approach: Following mechanical, chemical or immunological separation into components; double diffusion, electrophoretic, iso-electric focusing and chromatographic laboratory analysis will be utilized to isolate and characterize individual components for use in lymphocyte transformation assays.

(17) Progress: Initial experiments designed to evaluate the antigenic nature of G. lamblia have concentrated on three areas of research:

a. Separation by chromatographic procedures of the proteins present in sonicated and non-ionic detergent lysed trophozoites of axenically cultured organisms, Portland and NIH strain. These procedures were based upon iso-electric potential points.

Chromatofocusing columns were established; organisms prepared and evaluated by these procedures. No less than 19 proteins were separated and evaluated against antisera produced in rabbits. Continuing efforts are being directed towards refinement of these techniques to produce antigenically active isolates.

(17) Progress: continued

b. Isoelectric electrophoretic procedures were designed to separate proteins present in sonicated and lysed preparations of cultured organisms based upon isoelectric potential point in polyacrylamide gels.

The parameters for wide-range isoelectric analysis of sonicated and lysed preparations have been identified and conducted. An excess of 41 proteins have been observed. More sensitive staining procedures are being evaluated due to the extremely dilute nature of some of the proteins.

c. Evaluation of lymphocytes in culture, initially recovered from rabbits utilized in the production of antisera to trophozoites, have been unsuccessful due to anomolies present in the specific density of the cells.

Basic parameters are still being investigated in an effort to establsih reproducible experimental parameters. Continuing efforts are being directed towards refinement of the antigens involved to enhance the lymphocytes level of reaction, and the other parameters.

As a part of continuing efforts to evaluate the nature of the proteins involved, a definitive lability has been identified and characterized.

PUBLICATIONS and PRESENTATIONS: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/302 (3) Status: Ongoing

(4) Title: **The Evaluation of Recently Introduced, Commercially Available Clinical Microbiology Products for Possible Use in the FAMC Diagnostic Microbiology Laboratory.**

(5) Start Date: 1 July 1982	(6) Est Compl Date: 1 July 1985
(7) Principal Investigator: **Pari L. Morse, DAC** **Clifford Butler, DAC**	(8) Facility: FAMC
(9) Dept/Svc: **DCI/Pathology**	(10) Assoc Investigators: **Robert E. Holcomb, LTC, MSC** **Paul G. Engelkirk, LTC, MSC** **J.T. Stocker, LTC, MSC**
(11) Key Words: **diagnostic microbiology** **microbiological products**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jul 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To evaluate recently introduced products which are of interest to the Microbiology Section, Department of Pathology, FAMC, but which cannot adequately be evaluated within that laboratory due to time, personnel, and monetary constraints. This evaluation will include cost effectiveness, ease of use, reproducibility and speed.**

(16) Technical Approach: A separate protocol will be designed for each product evaluated.

(17) Progress: Four commercially-available diagnostic products for the clinical microbiology laboratory were evaluated under this protocol. Three of the four (Wellcogen, Accu-Staph, Sero-Stat) proved to be satisfactory, and were recommended for use by the Microbiology Service, Department of Pathology. One product, Directogen, did not provide satisfactory results, and was not recommended for use by the diagnostic microbiology laboratory. Additional products are presently being considered for evaluation.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/303 (3) Status: Ongoing

(4) Title: **A Study of Canine and Feline Mammary Tumors: Correlation of Steroid Hormone Receptors of Primary Tumor Sites with those of the Metastases.**

(5) Start Date: 7 Sep 82	(6) Est Compl Date: 30 Sep 84
(7) Principal Investigator: **Albert H. McCullen, D.V.M.** **CPT (P), VC** **Chief, Animal Resources Svc** **Dept of Clin Inves, FAMC**	(8) Facility: FAMC **Cell Physiology Svc, DCI**
(9) Dept/Svc: **DCI/Animal Resources**	(10) Assoc Investigators: **John W. Harbell, Ph.D., CPT, MSC** **Leslie C. Kramer, B.S., SP5**
(11) Key Words: **Mammary Tumors** **Steroid Hormone Receptors**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Sep 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To compare steroid hormone receptors in the primary mammary tumors of dogs and cats with receptors found in metastatic lesions, using the autoradiographic technique.**

(16) **Technical Approach: Samples of tumors and their metastases are minced, placed in culture medium with labeling compound, incubated, then rinsed. Tissue is flash frozen in liquid nitrogen and sectioned in the darkroom into 5 micrometer sections and mounted to previously prepared emulsion-coated slides. Following exposure at -20°C, for up to 3 weeks, slides are stained and silver grains over the nuclei of receptor positive cells are counted.**

(17) **Progress: To date, seven tumors, with their associated metastatic lesions, have been processed, and await counting. The previous principal investigator has separated from service, and this project will be continued by the above named principal investigator.**

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/300 (3) Status: Ongoing

(4) Title: **Is $Mg(OH)_2$ (Milk of Magnesia) a Potentially Effective Antidote for Acute Iron Salt Overdose?**

(5) Start Date: **1982**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Donald G. Corby, M.D., COL, MC** **Walter J. Decker, Ph.D.**	(8) Facility: FAMC
(9) Dept/Svc: **DCI**	(10) Assoc Investigators:
(11) Key Words: **iron salt overdose**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To determine the feasibility of administering Milk of Magnesia ($Mg(OH)_2$) suspensions to reduce the absorption of iron salts from the gastrointestinal tract in experimental iron salt intoxication. To determine the optimal time of administration; optimal dose of administration; the temporal limits of effectiveness and potential hazards of this form of therapy.**

(16) Technical Approach: The study will be conducted in 3 phases using experimental subjects consisting of laboratory animals. If phases 1-3 show conclusively that $Mg(OH)_2$ is an effective antidote in the treatment of acute iron overdose in the lab animal, phase 4 will be conducted. This phase will consist of subjects (patients adult or child) who present for treatment of acute iron intoxication at hospital emergency rooms or who contact poison treatment centers in five states and have obtained informed consent will be divided randomly into two groups for treatment using conventional therapy and identical treatment.

(17) Progress: Studies are being conducted in phases 1-3. Data has been accumulated and is being analyzed.

Publications and Presentations for FY 83 Annual Progress Report Proto No. 83/300

Department of Clinical Investigation - Office of the Chief

Publications:

1. Chadwick, E.W., Corby, D.G., and Decker, W.J.: Is Milk of Magnesia a Potentially Effective Antidote for Acute Iron Overdose? International Congress of Clinical Toxicology, August 1982 (Abst).

Presentations:

1. Chadwick, E.W., Corby, D.G., and Decker, W.J.: Is Milk of Magnesia a Potentially Effective Antidote for Acute Iron Overdose?` Present: 1982 International Congress of Clinical Toxicolocy, Snowmass, Colorado, August 1982.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/301 (3) Status: Ongoing

(4) Title: **Evaluation of Psyllium Mucilloid: A Potential Trapping Agent for Ingested Solvents.**

(5) Start Date: **1982**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Donald G. Corby, M.D., COL, MC** **Walter J. Decker, Ph.D.**	(8) Facility: FAMC
(9) Dept/Svc: **DCI**	(10) Assoc Investigators:
(11) Key Words: **psyllium mucilloid** **ingested solvents**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: **To evaluate 1) the stability of P/gel complexes in the GI tract of the laboratory animal, and 2) the ability of P to entrap solvents in vivo thus preventing their absorption and resultant systemic toxic manifestations and/or death.**

(16) Technical Approach: The study will be conducted in 4 phases. Phases 1-3 will be experimental subjects (lab animals). The species will be determined from data derived from the literature concerning the known LD50 for ethylene glycol, methanol and kerosene (all commonly found in the home and can be easily swallowed), if available. If data is not available, studies of LD50 will be performed. Phase 4 will only be conducted if phases 1-3 show conclusively that P entraps solvents thus reducing systemic absorption, toxicity and death in lab animals. In Phase 4, the subjects will be patients (adult or child) who present for treatment of acute iron intoxication at hospital emergency rooms or who contact poison treatment centers in five states. At that time an addendum covering the exact clinical protocol and human use requirements will be submitted to FAMC and IRC for approval to continue study.

(17) Progress: Studies on this protocol have temporarily been lessened due to other priorities in the Biochemistry and Animal Resources Services.

Publications and Presentations for FY 83 Annual Progress Report Proto No. 83/301

Publications:

1. Decker, W.J., St. Claire, R.L., III, and Corby, D.G.: Psyllium Mucilloid: A Potential Trapping Agent for Ingested Solvents. International Congress of Clinical Toxicology, August 1982 (Abst).

Presentations:

1. Decker, W.J., St. Claire, R.L., III and Corby, D.G.: Psyllium Muciloid: A Potential Trapping Agent for Ingested Solvents. Presented: 1982 International Congress of Clinical Toxicology, Snowmass, Colorado, August 1982.

DEPARTMENT OF CLINICAL INVESTIGATION

ANIMAL RESOURCES SERVICE

Training Support Summary

During the year, 120 students received training in suturing techniques. Eighty were students in the practical nurse course (91C); thirteen were FAMC Emergency Treatment Service personnel; three each were Army Reservists from the 5502 US Army Hospital and the 238th Medical Detachment; seven were veterinary aide trainees from the Aurora Public Schools Technical Center; four were students in the operating room specialist course (91D); two were Army Reservist from the 363rd Medical Laboratory; three were instructors from the practical nurse course; and one each from the 217th Medical Battalion (Colorado National Guard), Animal Resources Service and Orthopedic Surgery Service; one instructor from the Operating Room Specialist Course; and one Red Cross volunteer laboratory helper. Training consisted of an overview of operating room procedures including aseptic technique and operating room rules of etiquette, instruction in the surgical scrub, proper gowning and gloving technique, and hands-on experience in the dry and wet labs. Training was conducted on 30 days, using 30 dogs, and required 354 hours of training support by personnel of Animal Resources Service.

Forty-six sessions of microsurgical training were conducted, including twenty-one visits by Plastic Surgery Service, using eleven rabbits and training three surgeons; twelve visits by Family Planning and Consultation Service, using six rabbits and training five surgeons; eight visits by Orthopedic Service, using six rabbits and training four surgeons; three visits by Neurosurgery Service, using two rabbits and training two surgeons; and one session each by Otolaryngology Service and Animal Resources Service, using two rabbits and training three surgeons. Anesthesia, surgical preps and maintenance anesthesia and post-op recovery required two hundred and thirty hours of support by personnel of the Animal Resources Service, resulting in approximately one hundred and sixty hours of training.

General Surgery Service, Department of Surgery, used four dogs to train twenty-four surgeons in the use of staple guns. Seventy-two hours of training was received, requiring thirty-two hours of support by Animal Resources Service personnel, for pre-op anesthesia induction, surgical preps, anesthesia monitoring, circulating, and clean-up.

An Advanced Trauma Life Support exercise was conducted in May 1983, using five dogs to train twenty senior staff physicians in the emergency management of casualties. Eighty-plus hours of

training was received, requiring fifty hours of support by Animal Resources Service personnel for planning, preparation, pre-operative anesthesia induction, surgical preps, anesthesia monitoring, circulating and clean-up.

Cost of Training

Suturing Techniques:	$ 105/animal x 30 animals =	$3,150
Rabbit Microsurgery:	90/session x 46 sessions=	4,140
Staple Gun Exercises:	90/animal x 4 animals =	360
ATLS Exercise	90/animal x 5 animals =	450
		$8,100

Under a Memorandum of Agreement, three high school students from the Aurora Public Schools Technical Center received on-the-job vocational training, two as veterinary aides, and one as a laboratory aide. A total of 534 hours of training was received, requiring 801 hours of instruction and supervision by personnel of Animal Resources Service and Cell Physiology Service.

OB-GYN

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/350 (3) Status: See Attached List

(4) Title: GOG Protocols

(5) Start Date: August 1980	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Frank Major, M.D. Denver General Hospital Bing Johnson, M.D. University of Colorado	(8) Facility: FAMC
(9) Dept/Svc: OB/GYN	(10) Assoc Investigators: George Phillips, Jr., M.D., LTC, MC Chief, GYN-Oncology Svc FAMC
(11) Key Words: gynecological malignancies	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Oct 82 b. Review Results: See List
c. Number of Subjects Enrolled During Reporting Period: NA
d. Total Number of Subjects Enrolled to Date: NA
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". See List

(15) Study Objective: This clinical investigation is to participate in approved protocols of the GYN-Oncology Group in the study of gynecological malignancies. The studies which the group engages in are primarily Phase III studies comparing a proven method of primary or adjuvant treatment with a newer method of treatment in an attempt to improve response and survival in patients with gynecologic malignancies. Phase II studies are also conducted imploring experimental drugs. Entry of patients on Phase II study is permissible only when conventional methods of therapy or Phase III study treatments have failed to show an improvement in the patient's condition.

(16) Technical Approach: It is proposed patients be entered on approved studies(see attached) for which they are eligible, following the patient's signatures being obtained on a form consent. Each protocol permits the removal of the patient from the study should there be progression of the disease or should serious adverse effects occur. The study portion involves a combination of various approved drugs and/or adjuvant therapy with radiation chemotherapy to standard surgical procedures. Any radiation therapy employed in these protocols is a standard accepted dose and field treatment and has received prior approval of the National Cancer Institute before incorporation in a study protocol. The data collection, patient counselling and chemotherapy instruction and administration is performed by an (cont'd)

CONTINUATION SHEET, FY 83 ANNUAL PROGRESS REPORT Proto No.: 80/350

(16) Technical Approach: (cont'd)

Oncology Nurse Specialist, RN, credentialed at FAMC and supplied at no cost by the GOG Office. It is anticipated that between 30 and 40 patients per year will be entered from FAMC on these protocols. There will be no financial impact on FAMC as all experimental drugs will be furnished free of charge and maintained in the FAMC Pharmacy by the Oncology Pharmacist. Patients with gynecologic malignancies eligible for protocol will be receiving the newest, most advanced treatment which is currently available.

(17) Progress: See attached list

All Studies Are Shown in Brief Titles Only:

1. Protocol 24, Treatment of Women With Cervical Cancer. Protocol completed.
2. Protocol 25, A Randomized Comparison of Melphalan Alone. Closed.
3. Protocol 26, SECTION A: Master Protocol for Phase II Drug Studies. As on the document.
   SECTION I: A Phase II Trial of AMSA. Closed.
   SECTION C: A Phase II Trial of "cis-platinum". Closed to all, but first line therapy for uterine sarcomas.
   SECTION L: A Phase II Trial of Tamoxifen. Ongoing.
   SECTION O: A Phase II Trial of AZQ. Submitted for approval.
4. Protocol 26-P, A Phase II Trial of AT125. Submitted for approval.
5. Protocol 33, A Clinical-Pathologic Study of Stage I and II Carcinoma. Closed to all, but Grade II tumors.
6. Protocol 34, A Randomized Study of Adriamycin as an Adjuvant. Ongoing.
7. Protocol 40, A Clinical-Pathologic Study of Stage I and II Uterine Sarcomas. Ongoing.
8. Protocol 41, Surgical Staging of Ovarian Carcinoma. Ongoing.
9. Protocol 42, Treatment of Recurrent or Advanced Uterine Sarcoma. Closed.
10. Protocol 43, A Randomized Comparison of CIS-Platinum. Closed.
11. Protocol 44, Evaluation of Adjuvant Vincristine. Ongoing.
12. Protocol 45, Evaluation of Vinblastine, Bleomycin. Ongoing.
13. Protocol 47, A Phase III Randomized Study of Adriamycin. Closed.
14. Protocol 48, A Study of Progestin Therapy and a Randomized Comparison. Open.
15. Protocol 49, A Surgical-Pathologic Study of Women With Invasive Carcinoma.
    SECTION A: Closed.
    SECTION B: Ongoing.
16. Protocol 7601, Ovarian Cancer Study Group Protocol for Selected Stage I-A_1. Ongoing.
17. Protocol 7602, Ovarian Cancer Study Group Protocol for All Stage I-C and II.
    SECTION A: Ongoing.
    SECTION B: Closed secondary to lack of accrual.
18. Protocol 55, Hormonal Contraception and Trophoblastic Sequelae. Ongoing.
19. Protocol 26-N, A Phase II Trial of Dihydroxyanthracenddione (DHAD). Ongoing.
20. Protocol 52, A Phase III Randomized Study of Cyclophoaphamide Plus Adriamycin Plus Platinol (CAP) Versus Cyclophosphamide Plus Platinol (CP) in Patients With Optimal Stage III Ovarian Adenocarcinoma. Ongoing.
21. Protocol 53, A Randomized Double-Blind Clinical Trial Evaluating Cholestyramine Prophylaxis for Radiation-Induced Diarrhea, Phase II. Never activated by NCI.
22. Protocol 54, The Treatment of Women with Malignant Tumors of the Ovarian Stroma With Combination Vincristine, Dactinomycin and Cyclophosphamide. Ongoing.
23. Protocol 56, A Randomized Comparison of Hydroxyurea Versus Misonidazole as an Adjunct to Radiation Therapy in Patients With Stages II-B, III and IV-A Carcinoma of the Cervix and Negative Para-Aortic Nodes, Phase III. Ongoing.
24. Protocol 57, A Randomized Comparison of Multiple Agent Chemotherapy With Methotrexate, Dactinomycin and Chlorambucil Versus the Modified Bagshawe Protocol in the Treatment of "Poor prognosis" Metastatic Gestational Trophoblastic Disease (Phase III). Ongoing.
25. (Continued)

25. Protocol 58, A Study of Cytoplasmic Progesterone and Estradiol Receptors as Marker of Progestin-Responsive Endometrial Adenocarcinomas. Ongoing.
26. Protocol 59, Extended Field Radiation Therapy and Hydroxyurea Followed By A Randomized Comparison of Cisplatin or No Further Therapy in Patients With Cervical Squamous Cell Carcinoma Metastatic to High Common Iliac and/or Para-Aortic Lymph Nodes. Ongoing.
27. Protocol 60, A Phase II Randomized Study of Doxorubicin Plus Cyclophosphamide Plus Cis-Platinum Versus Doxorubicin Plus Chyclophosphamide Plus Cis-Platinum Plus BCG in Patients With Advanced, Suboptimal Ovarian Carcinoma, Stage III and IV. Ongoing.
28. Protocol 63, A Clinical-Pathologic Study of Stages II-B, III and IV-A Carcinoma of the Cervix. Ongoing.
29. Protocol 64, A Randomized Comparison of Rapid Versus Prolonged Infusion of Cis-Platinum in Therapy for Cancer of the Cervix. Ongoing.

GEORGE L PHILLIPS, JR, MD
LTC, MC
Chief, GYN & GYN-ONCOLOGY SERVICE

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/350 (3) Status: completed

(4) Title: Detection of postmenopausal women at risk for endometrial carcinoma by the progesterone challenge test.

(5) Start Date: 1981	(6) Est Compl Date: 1983
(7) Principal Investigator: John Hanna, MD, MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: OB-GYN	(10) Assoc Investigators: None
(11) Key Words: Endometrial cancer Progesterone challenge test	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Sep 83 b. Review Results: completed

c. Number of Subjects Enrolled During Reporting Period: 2

d. Total Number of Subjects Enrolled to Date: 30

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective: to ascertain if a progesterone challenge test can identify postmenopausal women with precancerous lesions of the endometrium.

(16) Asymptomatic postmenopausal women undergo endometrial biopsy in the clinic followed by an injection of progesterone. Positive or negative withdrawal bleeding is correlated with endometrial histology.

(17) The study has been completed. Of 30 women who had endometrial sampling followed by progesterone challenge test, 25 had no withdrawal bleeding, all had nonpathologic histology. Five patients exhibited withdrawal bleeding. Of these five, three had unsuspected adenomatous hyperplasia with a p value of less than 0.001. It was concluded that progesterone challenge tests may be reliable screening test for detecting those women at greater risks for developing endometrial hyperplasia or adenocarcinoma. The manuscript has been accepted for publication in a peer review journal.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/351 (3) Status: Completed

(4) Title: Serum levels of 13, 14 dihydro-15 keto prostaglandin $F_{2\alpha}$ in term and preterm labor.

(5) Start Date: Feb 82	(6) Est Compl Date: Feb 83
(7) Principal Investigator: Thomas Pennington, DO, CPT, MC	(8) Facility: FAMC
(9) Dept/Svc: Dept of OB-GYN	(10) Assoc Investigators: COL Jay M Hill, MD
(11) Key Words: Prostaglandin metabolites in term and preterm labor	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: Completed

c. Number of Subjects Enrolled During Reporting Period: 45

d. Total Number of Subjects Enrolled to Date: 120

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective: To determine a serum level of 13, 14 dihydro 15 keto prostaglandin $F_{2\alpha}$ (PGF-M) that differentiates true from false labor.

(16) Serum samples from 38 term, 22 preterm and 14 control patients were being analyzed for levels of prostaglandin metabolites. Comparisons of these samples will allow conclusions concerning the usefulness of PGF-M as a predictor of preterm labor.

(17) The study has been completed. Single plasma samples were obtained from 60 labor patients, 38 term and 22 preterm and 14 nonlabor controls and the baseline plasma volumes of 13, 14 dihydro 15 keto prostaglandin $F_{2\alpha}$ (PGF-M) were studied. The control means were significantly lower than the mean value of the term labor patients and the mean of 6 preterm patients which subsequently progressed to delivery. There was no significant difference between controls and 16 preterm labor patients whose contractions resolved. The manuscript has been submitted for publication.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/352 (3) Status: Completed Apr 83

(4) Title: An Evaluation of Single-Dose Metronidazole Treatment for Gardnerella Vaginalis Vaginitis

(5) Start Date: 30 Sep 82	(6) Est Compl Date: Apr 83
(7) Principal Investigator: Alfred Purdon, JR, MD, MAJ, MC John H. Hanna, MD, MAJ, MC	(8) Facility: FAMC
(9) Dept/Svc: OB-GYN	(10) Assoc Investigators: Pari L Morse, GS-9 Donald D Paine, GS-11 Paul G Engelkirk, PhD, LTC, MSC
(11) Key Words: Metronidazole, single dose vs standard, 7 day course, Gardnerella Vaginalis vaginitis	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Feb 83 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 59

d. Total Number of Subjects Enrolled to Date: 142

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

(15) Study Objective: to ascertain clinical efficacy of single-dose vs standard seven day metronidazole treatment of Gardnerella Vaginalis vaginitis.

(16) Technical Approach: Patients with symptomatic vaginal irritation and/or discharge were initially cultured for G. Vaginalis after excluding candida albicans and trichomonas infection. Patients were randomized to single-dose vs seven day treatment with metronidazole. Patients were re-cultured seven days later and symptom status noted.

(17) The study has been completed. 142 patients were studied. 67% of women treated with single 2 gm dose of metronidazole and 86% of patients receiving the standard 7 day course were considered cured after treatment. This difference was not sufficiently significant but it was concluded that since 2 gm dose is less expensive, easier to administer and the efficacy between the two regimens is comparable, a 2 gm initial dose be use for initial treatment of G. Vaginalis. Manuscript has been submitted for publication.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/350 (3) Status: Completed

(4) Title: **Evaluation of the Plastic Envelope Method for the Detection of Trichomonas vaginalis and Candida albicans.**

(5) Start Date: **July 1983**	(6) Est Compl Date: September 1983
(7) Principal Investigator: **Alfred Purdon, Jr.,MD,MAJ,MC** **Lee P. Frye, MD, CPT, MC** **William Kim Brady, MD, CPT, MC**	(8) Facility: FAMC
(9) Dept/Svc: **OB-GYN**	(10) Assoc Investigators: Mr. Donald D. Paine, DAC
(11) Key Words: **trichomonas, candida,** **plastic envelope method**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 300 total

d. Total Number of Subjects Enrolled to Date: 300

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To evaluate the sensitivity and specificity of new in vitro culture methods for the diagnosis of Trichomonas vaginalis and Candida albicans vaginitis.**

(16) Technical Approach: There will be approximately 200 female subjects; 100 in the test group and 100 in the control group with ages ranging from 16 years to 40 years. Each subject will be given a physical exam and medical history taken prior to entry in this study. Patients diagnosed as having either Trichomonas or Candida vaginitis will be treated using approved medical techniques and therapeutic agents.

(17) Progress: The study was designed to investigate the plastic envelope method for the detection of Trichomonas vaginalis and Candida albicans. Data is currently being analyzed but shows good correlation of the method for clinical Trichomonas, and superiority of the PEM for detection of monilia over clinical measures at a statistically significant level. Preparation of manuscript is ongoing.

Publications and Presentations: none

PEDIATRICS

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 77/402 (3) Status: Terminated

(4) Title: **Evaluation of Ventricular Function and Pulmonary Vascular Resistance in Asphyxiated Infants**

(5) Start Date: **December 1977**	(6) Est Compl Date: **1983**
(7) Principal Investigator: **Carl Gumbiner, MAJ, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Pediatrics/Newborn**	(10) Assoc Investigators:
(11) Key Words: **newborn asphyxia heart**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Dec 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: none

d. Total Number of Subjects Enrolled to Date: none

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none

(15) Study Objective: **To serially measure left ventricular function in newborns with asphyxia neonatorum.**

(16) Technical Approach: All infants with the diagnosis of asphyxia neonatorum as defined by Apgar 6 are candidates for this study. Study infants will be serially evaluated on days 0,1,2,4,6,10 with echocardiograph.

(17) Progress: This protocol has been terminated due to the Principal Investigator leaving active duty.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 79/408 (3) Status: Terminated

(4) Title: **Intergroup Rhabdomyosarcoma Study II**

(5) Start Date: **27 March 1980**	(6) Est Compl Date: **1983**
(7) Principal Investigator: **LTC Askold D. Mosijczuk, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Pediatrics**	(10) Assoc Investigators:
(11) Key Words: **intergroup rhabdomyosarcoma**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **May 83** b. Review Results: **Terminate**

c. Number of Subjects Enrolled During Reporting Period: **0**

d. Total Number of Subjects Enrolled to Date: **0**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **The objectives of this study are to determine if cyclophosphamide can be dropped from the standard VAC regimen with radiation omitted without jeapordizing disease control and survival, and if so, it there would be less side effects without it, particularly testicular, ovarian and renal dysfunction in Clinical Group I Disease. In Clinical Group II Disease, it is to determine if repetitve courses of "pulse" VAC improve the duration of complete remission and survival.**

(16) Technical Approach: Patients with rhabdomyosarcoma received surgery, radiation, and chemotherapy according to protocol guidelines, and tumor response and survival is measured.

(17) Progress: This particular protocol has been terminated and has been included in a POG study.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/400 (3) Status: **Terminated**

(4) Title: **Evaluation of Lymphocyte Blast Transformation in Breast Milk and Peripheral Blood Lymphocytes**

(5) Start Date: **1980**	(6) Est Compl Date: **1983**
(7) Principal Investigator: **Leonard E. Weisman, MAJ, MC**	(8) Facility: FAMC
(9) Dept/Svc: **Pediatrics/Newborn**	(10) Assoc Investigators: **R. Stephen Whiteaker, CPT, MSC**
(11) Key Words: **Lymphocyte blast transformation**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **Apr 83** b. Review Results: **Terminated**

c. Number of Subjects Enrolled During Reporting Period: **NA**

d. Total Number of Subjects Enrolled to Date: **NA**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To obtain data on lymphocyte blast transformation of human breast milk lymphocytes and compare them to maternal post-partum peripheral blood lymphocytes.**

(16) Technical Approach: Simultaneous breast milk and peripheral blood samples from post-partum subjects are evaluated for lymphocyte blast transformation using amicrotechnique after: 1) utilizing various isolation procedures, or 2) utilizing various selected patient populations or 3) utilizing various laboratory storage conditions.

(17) Progress: This protocol has been terminated due to the Principal Investigator leaving FAMC.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 81/402 (3) Status: Ongoing

(4) Title:
Diagnosis of Respiratory Syncytial Virus (RSV) Infection in Infants by Enzyme-Linked Immunosorbent Assay (ELISA).

(5) Start Date: 7 January 1981 (6) Est Compl Date: 1 July 1984

(7) Principal Investigator:
Donald R. Moffitt, MAJ, MC
Donald D. Paine, GS-11

(8) Facility: FAMC

(9) Dept/Svc: Pediatrics/DCI

(10) Assoc Investigators:
William H. Parry, COL, MC
Paul G. Engelkirk, LTC, MSC

(11) Key Words:
ELISA
RSV infection

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Jun 83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 37
d. Total Number of Subjects Enrolled to Date: 53
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".
NA

(15) Study Objective:
Development of an ELISA procedure for the detection of RSV antigen using commercially available reagents, and determination of the efficacy of the procedure for the diagnosis of RSV infections in infants.

(16) Technical Approach:
An ELISA procedure will be developed using commercially available reagents and virus controls. Nasal secretions and urine specimens will be obtained from infants with suspected RSV infection, and urine specimens will be obtained from control children. These specimens will be tested by the ELISA procedure. Patient's ELISA results will be compared with tissue culture results.

(17) Progress:
To date, a total of 18 inpatients have been entered into this study. Urine and nasal ELISA procedures for the detection of RSV antigen have been performed on urine and nasal specimens from these patients. In addition, ELISA procedures have been performed on urine specimens from 35 control children. Dr. Moffitt is planning to present the results of this investigation at a Uniformed Services Pediatric Seminar during FY 1984. Due to the small number of RSV patients thus far entered into this study, this protocol will remain in an active status throughout the 1983-1984 RSV season.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/400 (3) Status: Ongoing

(4) Title: The Effect of Glycerin Suppository Administration On Bilirubin Levels In Infants Receiving Phototherapy

(5) Start Date: October 1982

(6) Est Compl Date: October 1984

(7) Principal Investigator:
Gail Murphy, M.D.
CPT, MC

(8) Facility: FAMC

(9) Dept/Svc: Pediatric/Newborn

(10) Assoc Investigators:
John R. Pierce, M.D., CPT, MC
Gerald B. Merenstein, M.D., LTC, MC

(11) Key Words:
Hyperbilirubinemia
re: glycerin suppositories

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: None

d. Total Number of Subjects Enrolled to Date: None

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". N/A

(15) Study Objective: To determine whether the utilization of glycerin suppositories to enhance stooling effects peak serum bilirubin or influences changes in bilirubin levels in infants 36 weeks gestational age being treated with phototherapy for hyperbilirubinemia.

(16) Technical Approach: Sixty infants 36 weeks gestation and 1 week of age who require phototherapy for treatment of hyperbilirubinemia will be studied. Infants will be randomly assigned to a treatment group of glycerin suppositories every 4 hours or a control group. Bilirubin levels will be determined every 6-8 hours while under phototherapy for treatment and control patients. Results will be tabulated and statistically evaluated for any benefit.

(17) Progress: This project has been carried over from last year, however, the principal investigator assigned last year was unable to enroll any patients. We have assigned a new principal investigator, Dr. Murphy, who will begin enrolling patients in the very near future.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/401 (3) Status: Ongoing

(4) Title: Modified Immune Serum Globulin In Neonates.

(5) Start Date: 1 Apr 82	(6) Est Compl Date: 30 Sep 83
(7) Principal Investigator: John R. Pierce, M.D. LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Pediatric/Newborn	(10) Assoc Investigators: Gerald W. Fischer, M.D. LTC, MC
(11) Key Words: Modified immune serum globulin, kinetics, neonates	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Mar 83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 0
d. Total Number of Subjects Enrolled to Date: 15
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None.

(15) Study Objective: To analyze the ability of Modified Immune Serum Globulin (MISG) to elevate neonatal IGG levels. We will specifically look at pre and post MISG serum for evidence of increased activity against Group B streptococcus using invetro assays for opsonic antibody.

(16) Technical Approach: Infants will be assigned to the control or treatment group. The treatment group will receive an infusion of MISG given over 4-8 hours. Blood samples will be drawn prior to and following the infusion at specific intervals. Sera will be forwarded to the Uniformed Services University of the Health Sciences in Bethesda, Maryland for all determinations. Infants will be monitored closely during the infusion for any side-effects or adverse reactions.

(17) Progress: This protocol was a cooperative protocol between several of the Army Medical Centers. The study has been completed by the addition of patients from the other medical enters. It was not necessary during this past calendar year to enroll any new patients here at Fitzsimons in this protocol.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 82/401

SERVICE Newborn DEPARTMENT Pediatrics

Weisman LE, Fischer GW, Pierce JR, et al: Intravenous immunoglobulin therapy in the neonate: A study of pharmacokinetics and safety, (Abst). Pediatric Research 17:341a, 1983.

PRESENTATIONS: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/403 (3) Status: Ongoing**

(4) Title: SWOG/POG Studies - FAMC DCI B(C) 89 Series

(5) Start Date: November 1982	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Askold D. Mosijczuk, LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Ped Clin, PEDIATRICS	(10) Assoc Investigators: None
(11) Key Words: SWOG/POG Collaborative Studies	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Revie : New proj. b. Review Results: n/a

c. Number of Subjects Enrolled During Reporting Period: **

d. Total Number of Subjects Enrolled to Date: **

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".**

**Detailed information is contained in the following report for the 24 SWOG/POG studies involved.

(15) Study Objective and (16) Technical Approach are contained in the protocols for the 24 SWOG/POG studies involved under WU# 82/403.

(17) Progess:

B(C)89#1: POG #7376 Histiocytosis X Natural History.

Two patients with Histiocytosis X were entered on the study and are continued to be followed. Study has been closed by POG to new entries.

B(C)89#2: POG #8047 Histiocytosis X in Bone.

No patients have been entered at FAMC in the last year or since the study started in 1982. The study is open to patients.

B(C)89#3: (SWOG) POG 7896 Multimodal Therapy for the Management of Primary, Non-Metastatic Ewing's Sarcoma of Bone, Pelvic and Sacral Sites Excluded.

Treatment results with both arms of this protocol are comparable to the results achieved with a previous Intergroup Ewing's Sarcoma regimen (POG 7299). Consequently, study is closed to new patient entries.

B(C)89#4: (SWOG) POG 7895 Multimodal Therapy for the Management of Primary, Non-metastatic Ewing's Sarcoma of Pelvic and Sacral Bones, (IESS) Phase III.

Survival on this study is not statistically superior to survival results on POG 7299 study of this tumor. Study is closed to new entries as of January 1983.

B(C)89#5: (SWOG) POG #8095 Multimodal Therapy of Metastatic Ewing's Sarcoma with Chemotherapy including Adriamycin, Vincristine, Cyclophosphamide, 5-Fluorouracil, Actinomycin-D Plus Irradiation and Surgery (if feasible) Intergroup Ewing's Sarcoma Study Phase III.

No improvement in survival has been noted with the current treatment approach when compared with a previous Intergroup Ewing's Sarcoma Study (POG 7450).

B(C)89#6: POG 8104/05 Comprehensive Care of the Child with Neuroblastoma: A Stage and Age-oriented Study, Phase III.

No new patients have been entered on protocol. One patient entered in 1981 has had recurrent disease and died.

Therapy has, in general, been well tolerated. Majority of patients have responded to therapy, but continue to relapse. Response rate is encouraging. The toxicity from Cis-platinum and adriamycin are significant, but are justified in view of the responses seen and the dismal prognosis of this tumor in advanced stages.

B(C)89#7: POG. 8103 Hematoma III, Treatment of Hepatoblastoma and Hepatocellular Carcinoma in Children with Surgery, Radiation, and Chemotherapy Phase III.

This study was withdrawn by principal investigator in November, 1982.

B(C)89#8: (SWOG) POG-8000 National Wilms' Tumor Study #3.

No patients have been entered at FAMC in the last fiscal year or since the study was approved on 5 October 1982.

Treatment as entered in this study affords the best known treatment for this tumor and is very tolerable and acceptable.

B(C)89#9: POG 7909 Evaluation of MDPP Adjuvant Chemotherapy in the Treatment of Localized Medulloblastoma and Ependymoma, Phase III

Although numbers are insufficient and not statistically significant at this time, there is a definite survival trend favoring patients on the MOPP chemotherapy arm.

One medulloblastoma patient was enrolled. Myelosuppression has been severe with nitrogen mustard doses of 6 mgm/M2. Hence, amendment was made to decrease this dose to 3 mgm/M2. Since this change, myelosuppression has been tolerable. Myelosuppression continues to be the main risk, but appears to be justified by the trend toward better survival in patients receiving MOPP chemotherapy in addition to radiation therapy. There is a trend toward improved survival in the MOPP arm.

B(C)89#10: (SWOG) POG 7898 Intergroup Rhabdomyosarcoma Study (IRS)-II

Study continues to progress well on a national level.

Expected myelosuppression with one episode of septicemia has been noted in one patient at FAMC. Three children with rhabdomyosarcoma have been enrolled at FAMC. One new patient with rhabdosarcoma of (L) parapharyngeal muscles was enrolled this first year and continues on treatment satisfactorily. Two previous children have completed treatment per protocol and are in complete remission in good health. Treatment according to this protocol continues to give overall good survival results on a national level. Benefits of improved tumor control in majority of patients outweigh the risks of myelotoxicity and radiation therapy.

B(C)89#11: POG PROTOCOL #7837 Evaluation of Systemic Therapy for Children with T Cell Acute Lymphatic Leukemia.

On 12 May 1983, protocol was amended nationally to include all pediatric patients with Stage III and IV Non-Hodgkin's Lymphoma, lymphoblastic variety.

No patients were enrolled at FAMC. Nationally, children with T-Cell ALL and lymphoblastic lymphoma have done very well on treatment to, and similar, to this protocol. Risks are justified by the improved survival results from treatment on this protocol.

B(C)89#12: POG 7712 Comparison of Treatment Regimens for the First CNS Relapse in Children with Acute Lymphocytic Leukemia, CNS Leukemia Study #6, Phase III.

Study was closed by POG on 2 November 1982.

B(C)89#13: POG 7901 Rescue Therapy for non-CNS Extramedullary Disease in Children with Acute Lymphoblastic Leukemia, Phase III.

No marrow relapses have been observed more than 14 months following EMD, suggesting that systemic therapy may not be required for a full three years following isolated testicular or ocular EMD. Isolated testicular or concomittant testis and marrow relapses have been observed in patients 1, 1, 2, 2, and 5 years off all therapy following initial CR. Long-term follow-up following completion of therapy is mandatory. Seven children with ocular or orbital leukemia are entered on study; six have isolated ocular and/or orbital disease. Study should be amended to require no testicular biopsy for clinically-enlarged testes in boys with concomittant marrow relapse. Biopsy will be required for patients in marrow remission. Study should remain open for testicular and ocular/orbital EMD. Response Data: All evaluable patients achieved testicular EMD complete response. One of 43 evaluable patients with testicular relapse has had a second testicular relapse while remaining in marrow remission. Six of seven ocular/orbital EMD patients had EMD remissions which persist. One patient had a second isolated orbital relapse. Toxicity: Fifty-one patients evaluable for toxicity. Two of 44 patients with testicular XRT had mild to moderate rectal mucositis. One of 44 had persistent benign scrotal effusion. Two of seven ocular/orbital patients had mild to moderate conjunctivitis.

No patients were enrolled at FAMC.

(Experiences of human subjects, etc.): Toxicity has been relatively mild. In patients with isolated extramedullary relapse on this protocol, no marrow relapses have occurred more than 14 months following (EMI). Risks are acceptable, current survival benefits are encouraging.

B(C)89#14 POG 8107 Multi-institutional Controlled Trial of Adjuvant Chemotherapy in the Treatment of Osteosarcoma, Phase III.

Patients are being added to the study, but much more slowly than anticipated.

Not all institutions or patients are willing to accept randomization to the 2 arms of the protocol. One patient has been enrolled at FAMC. It is difficult to get patients to agree to randomization between surgery alone vs. surgery with very aggressive chemotherapy. Some patients insist on the first options, others are adamant about the second option. There were an insufficient number of patients with insufficient length of followup to make any analyses.

B(C)89#15 POG (SWOG) #7612 MOPP + BLEO and A-COPP with IF RT in Stage III Hodgkin's Disease in Children.

Study was closed by POG on 20 October 1982 due to poor patient accrual.

B(C)89#16 POG #7905 A-COP+ for Non-Hodgkin's Lymphoma in Children.

Study is closed. (There were no FAMC enrollments.)

B(C)89#17 POG #8035/36 Laboratory Subclassification and Evaluation of Treatment Regimens in Acute Lymphoid Leukemia of Childhood (ALinC#13).

Study continues to accrue patients satisfactorily. The pre-B cell otype in CALL patients has been found to be a prediction of poor response to treatment. One patient was transferred on protocol to FAMC from WRAMC.

Toxicity has been tolerable and predictable. Preliminary survival figures are reasonable. Elimination of cranial irradiation in standard risk patients has not resulted in decreased survival or increased incidence of CNS relapse.

B(C)89#18 SWOG Protocol #7799 Rare Tumor Registry.
More patients with rare tumors have been registered.
No patients were enrolled at FAMC.
This is not a treatment protocol.

B(C)89#19 POG #8958 NWTS Long-term Followup Study.
Patients continue to be enrolled in this study, but so far, none at FAMC.

Orthopedic disabilities are noted as most common long-term side effect of treatment for Wilm's Tumor. Second malignancies are also noted.

B(C)89#20 POG #8157 Multi-agent Chemotherapy with Adjuvant Whole-body Irradiation in Half-body Increments in Patients with Clinical Group IV Rhabdomyosarcoma.

One patient was enrolled at FAMC who relapsed and died.

Three patients have been registered on study since activation. One is in CR having completed HBI and autologous BM reinfusion 1 April 1982. Maintenance chemotherapy has been tolerated at 1/2 dose as per protocol. A second patient in PR five months from diagnosis has relapsed and expired. The third patient is in PR, approaching CR and four months from the onset of treatment. This last patient has completed BM harvesting and the initial course of HBI. Except for severe neutropenia in all three patients and one episode of severe mucositis, the chemotherapy has been well tolerated. Prepilot data is available on eight patients with the above three individuals, allowing a total of eleven patients. Improved accrual is needed to complete observations on toxicity. The University of Florida has requested permission to put patients on this pilot study. The coordinators of 8157 are in favor of this and feel that increased familiarity with this pilot study among other institutions with the capability of autologous marrow transplant would be of help in obtaining the needed accrual of four more patients.

B(C)89#21 SWOG (POG) #8022 Evaluation of Vindesine Twice Weekly Plus Prednisone and A Cross-over Study of Vindesine-Prednisone vs Vincristine Prednisone in Children with Acute Lymphoblastic Leukemia, Hodgkin's Disease and Non-Hodgkin's Lymphoma.

Enough patients have been accrued in the Vincristine-resistant group, so that arm of the study is closed. No patients have been enrolled at FAMC.

Toxicity has been minimal to moderate. Responses to Vindesine are seen in patients resistant to Vincristine. Benefits to patients as a result of Vindesine therapy seem to outweigh the side effects of treatment.

B(C)89#22 POG 8106 High-dose Cyclophosphamide/High-dose Methotrexate with Coordinated Triple Intrathecal Therapy for Stages III and IV Non-lymphoblastic Lymphoma, Phase III.

Patient accrual has been excellent and results are too preliminary. No patients have been enrolled at FAMC, to date.

There was one fatal toxicity due to myelosuppression. In view of the poor prognosis in this group of patients, aggressive treatment is justified.

B(C)89#23: POG #8101 Acute Nonlymphocytic Leukemia (ANLL) in Children, Phase III.

Treatment Arm 2 has been closed to future patient entry because of a lower remission-induction rate. No patients have been enrolled at FAMC. The expected degree of pancytopenia has been taken (reaction).

Vast majority of patients have continued on study. One treatment arm (1) appears to be better than the other (2) but the difference is not yet statistically significant. Risks are justified in view of the prognosis and encouraging results of treatment.

(Toxicity) Three patients have been removed for presumed drug toxicity. Two were removed immediately post-induction therapy (1 case Ara-C and 1 case 6-TG). The third case was removed after 13 months CR for cardiomyopathy, etiology not defined. Pancytopenia, as anticipated, as been recorded. (Summary) Submission of special study specimens is improving; over 2/3 of patient entries have had all special study requirements fulfilled. Karyotype photograph submission remains a problem. Treatment compliance remains good. As is apparent, it is too early to analyze data with regard to remission duration.

B(C)89#24: POG #8156 Live VAricella Protocol.

No patients have been enrolled at FAMC. This study continues nationally in POG, but was voluntarily closed at FAMC by principal investigator on 25 April 1983.

Publications and Presentations: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/400 (3) Status: Ongoing

(4) Title: A Comparative Study Of Body Temperature Measured At Different Sites In Very Low Birth Weight Infants.

(5) Start Date: July 1983	(6) Est Compl Date: June 1984
(7) Principal Investigator: Gail Murphy, M.D. CPT, MC	(8) Facility: FAMC
(9) Dept/Svc: Pediatric/Newborn	(10) Assoc Investigators: John R. Pierce, M.D. LTC, MC Gerald B. Merenstein, M.D. COL, MC
(11) Key Words: body temperature in very low birth weight infants	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: Apr 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: None

d. Total Number of Subjects Enrolled to Date: None

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: The objective of this study is several fold. First objective is to determine the depth of insertion of a rectal probe necessary to obtain a stable temperature reading in a very low birth weight infant. Secondly, to determine the difference between rectal, esophageal, axillary and skin surface temperatures in very low birth weight infants. And thirdly, to determine the difference between the time required to attain a stable axillary temperature with a standard glass thermometer vs an electronic thermistor and to determine the difference if any in their ultimate readings.

(16) Technical Approach: Following parental consent, infants who meet study criteria (less than 1500 grams birthweight, negative bacterial cultures and off antibiotic therapy, without congenital anomalies, double walled incubator) will have temperature monitors placed by the investigators. An esophageal temperature probe will be placed in the mid portion of the esophagus and temperatures will be recorded from this probe every three minutes throughout the study. A skin temperature probe will be placed in the right upper quadrant and connected to the incubator servo control unit. Another skin probe will be placed in one axilla while a glass thermometer is held in the other. A stop watch will be used to determine the length of time necessary for the glass thermometer to attain the same reading as the electronic probe or until a reading remains stable for one minute. A rectal probe marked in 5 mm increments will be inserted into the rectum with readings taken at a depth of 1 cm. At successive 5 mm depths temperatures will also be recorded. The 20 study babies will be studied at approximately the same time each morning for six consecutive mornings and at least 1.5 hours after last feeding. Appropriate statistical methods will be used to analyze the data to determine if

there are any significant difference in temperatures measured at different sites.

(17) Progress: As of this date no patients have been entered into the study, however, it is anticipated that with the new principal investigator patients will be entered very soon.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/401 (3) Status: Ongoing

(4) Title: Prevalence of Endometriosis Externa in Adolescent Women Complaining of Severe Dysmenorrhea

(5) Start Date: 4 April 1983	(6) Est Compl Date: June 1985
(7) Principal Investigator: Mark E. Blaedel, LTC, MC Edward Lundblad, LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Pediatrics/OB-GYN	(10) Assoc Investigators: Mark S. Brown, Captain, MC Jerald F. Dirks, Psy D.
(11) Key Words: Endometriosis Dysmenorrhea	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA Review Results: NA

c. Number of Subjects Enrolled During Reporting Period:

Stage I	505
Stage II	35
Stage III	2

d. Total Number of Subjects Enrolled to Date: Same

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

1. An epidemiologic survey of young women will document the prevalence of symptomatic denometriosis externa in a middle class primary care population of adolescent women complaining of dysmenorrhea. This prevalence figure will tell the health care provider how alert he has to be to this condition.

2. Background biosocial data will be collected in hopes that certain distinctive historical markers will distinguish the young woman with secondary dysmenorrhea due to endometriosis from the patient with severe primary dysmenorrhea.

3. A registry of young women with endometriosis will be developed. In the future, trials of medication can be given to these young women to determine the therapy of greatest benefit. These women can also be followed for a prolonged period of time to determine the incidence of complications of endometriosis.

(16) Technical Approach: This retrospective stage of epidemiologic survey is designed to isolate by questionnaire those young women who might have endometriosis and subject then to laparoscopy.

(17) Progress: As of 30 September 1983, approximately 500 patients have completed the Stage I questionnaire. Out of these approximately 35 have completed the Stage II requirements and, to date, two patients have had a laparoscopy.

Publications and Presentations: none

RADIOLOGY

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/602 (3) Status: Ongoing

(4) Title: I.V. administration of 131-I-6-B iodomethylnorcholesterol (NP-59) for adrenal evaluation and imaging.

(5) Start Date: 1980	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Peter W. Blue LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Nuc Med Svc	(10) Assoc Investigators: Nasser Ghaed COL, MC
(11) Key Words: iodocholesterol adrenal	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 11/83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: -0-

d. Total Number of Subjects Enrolled to Date: 2

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:

Clinical evaluation of NP-59 as a diagnostic agent for the detection of adrenal-cortical disorders and as a potential scanning agent for detecting structural abnormalities of the adrenal medulla.

(16) Technical Approach:

Each patient will be studied while taking Lugol's or SSKI to protect the thyroid. Some patients will have adrenal function suppressed with Dexamethasone. Following a 2 millicure dose of NP-59, each patient will be scanned at day 3 and possibly day 5 and 7.

(17) Progress:

No studies with 131-I-NP-59 for evaluation of patients with possible adrenal function abnormalities have been performed since 1 Oct 82.

PUBLICATIONS/PRESENTATIONS: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-73, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/601 (3) Status: Ongoing

(4) Title:

Effects on the Human Auditory Mechanism Following In Utero Exposure to Diagnostic Ultrasound

(5) Start Date: 11/32	(6) Est Compl Date: 3784
(7) Principal Investigator: **Gloria H. Komppa, M.D., C, Diag Ultrasound Section, Marlene Severson M.D., CPT, MC, US Army, Jeffrey Davies PHD., CPT, MC, US Army**	(8) Facility: FAMC
(9) Dept/Svc: **Radiology, ENT**	(10) Assoc Investigators: **Nasser Ghaed, M.D., COL, MC, C, Dept of Radiology; John Kolmer, M.D., LTC, MC, C, Dept of ENT**
(11) Key Words: **Ultrasound, In Utero, Hearing**	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Nov 82 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: Approx 100, 22 tested

d. Total Number of Subjects Enrolled to Date: Approximately 100

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

None

(15) Study Objective:

To determine whether children exposed in utero have detectable hearing loss as compared to a normal population.

(16) Technical Approach: The auditory test results of approximately 100 children, exposed in utero, will be compared to approximately 30 normal children. The audiologist will interpret the results of impedance audiometry and brainstem auditory evoked response potentials without knowing whether or not the patient was exposed to ultrasound.

(17) Progress: Letters were sent to over 100 women who had exposure to ultrasound while pregnant, soliciting their cooperation and consent to have their child tested for hearing loss. Over 20 of these children have been tested. One problem we have encountered is obtaining unexposed children for normal control group. We have tried to obtain normal children through the Pediatric Outpatient Clinic, but with limited success.

PRESENTATIONS/PUBLICATIONS: None.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/602 (3) Status: Ongoing

(4) Title: Gallium Index: Qualitative vs. Quantitative Analysis

(5) Start Date: July 1983	(6) Est Compl Date: 1985
(7) Principal Investigator: Peter W. Blue LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Nuc Med Svc/Radiology	(10) Assoc Investigators: Nasser Ghaed COL, MC
(11) Key Words: Gallium Index	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 22

d. Total Number of Subjects Enrolled to Date: 22

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e".

(15) Study Objective:

To evaluate a computer quantitative assessment of gallium uptake in normal and abnormal lungs and compare it to a previously used qualitative method.

(16) Technical Approach:

All gallium studies are acquired on computer and pulmonary functions acquired. The gallium index is calculated both ways (vide supra) and when enough patients seen, data analyzed.

(17) Progress:

Twenty-two patients have been studied. Data is insufficient for analysis.

PRESENTATIONS/PUBLICATIONS: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/600 (3) Status: Completed

(4) Title: Osteoporosis in Amenorrheic Distance Runners

(5) Start Date: 3/83	(6) Est Compl Date: 30 Aug 83
(7) Principal Investigator: Peter W. Blue LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Nuc Med Svc/Radiology	(10) Assoc Investigators: None
(11) Key Words: Osteoporosis, Amenorrhea, Athletes	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: March 1983 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 34

d. Total Number of Subjects Enrolled to Date: 34

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

(15) Study Objective:
Evaluation if female long-distance runners who develop amenorrhea develop osteoporosis as measured by bone densitometry.

(16) Technical Approach:
Each patient in 3 groups (normal, menstruating runner, and amenorrheic runner) will have bone densitometry measured using the Norland Densitometer.

(17) Progress:
Thirty-four patients were studied, a positive correlation between body fat content and decreased bone density was found in the amenorrheic runner group. The study is completed.

PUBLICATIONS/PRESENTATIONS: None

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/601 (3) Status: Ongoing

(4) Title: Evaluation of Indium Oxine In-111 Labeled Cellular Blood Components

(5) Start Date: 1 Oct 83	(6) Est Compl Date: 1985
(7) Principal Investigator: Peter W. Blue LTC, MC	(8) Facility: FAMC
(9) Dept/Svc: Nuc Med Svc/Radiology	(10) Assoc Investigators: Nasser Ghaed COL, MC
(11) Key Words: Indium Oxine	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: None

d. Total Number of Subjects Enrolled to Date: None

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None.

(15) Study Objective:
To evaluate Indium Oxine Labeled Blood Components and their metabolic fate, currently labeled WBC in infection.

(16) Technical Approach:
Blood components (currently WBC) are removed from patient, labeled, reinjected, and patient is scanned (labeled WBC will localize the infection sites).

(17) Progress:
No studies have been performed.

PRESENTATIONS/PUBLICATIONS: None.

PRIMARY CARE AND COMMUNITY MEDICINE

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 74/651 (3) Status: Ongoing

(4) Title: **Establishment of and Training in Methods for Special Studies of Abnormal Hemoglobins**

(5) Start Date: January 1974	(6) Est Compl Date: Indefinite
(7) Principal Investigator: **Nicholas C. Bethlanfalvay, MD, DAC**	(8) Facility: FAMC
(9) Dept/Svc: Primary Care	(10) Assoc Investigators: **Joseph Lima, DAC**
(11) Key Words: **Abnormal Hemoglobins Techniques on Identification**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 12/82 b. Review Results: ongoing
c. Number of Subjects Enrolled During Reporting Period: NA
d. Total Number of Subjects Enrolled to Date: NA
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:
To establish and conduct training in methods for special studies of abnormal hemoglobins.

(16) Technical Approach: **To acquaint and to train existing personnel in the performance of various procedures as they pertain to biochemical study of hemoglobins and red cell enzymes involved in hemoglobin function.**

(17) Progress: **Since 1974 the following can now be performed. Column chromatography electrophoresis and iso-electrofocusing of hemoglobin; column chromatography and electrophoresis and iso-electrofocusing of globin and electrophoretic demonstration of iso-enzymes of both NADH and NADPH dependent methemoglobin reductases. Quantitation of NDAH-cytochrome b_5 and NADPH MR, glutathione, glutathione reductase now can be done. G-6 PD iso-enzyme patterns now can be determined. Recently equipment for the determination of hemoglobin oxygen dissociation curve has been obtained, and is operational. Carbohydrate and nucleoside utilization of red cells can now be assessed using cold or radioactive substrates. In FY 83 further work was being done on the electrophoretic demonstration of enzymes which are active in the catabolic pathway of purine nucleosides.**

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 78/650 (3) Status: Ongoing

(4) Title: Evaluation of Thalassemia as CAuse of Hypochromic Microcytic Anemia and in Interaction with Hemoglobin Variants

(5) Start Date: March 1978	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Nicholas C. Bethlenfalvay, MD, DAC	(8) Facility: FAMC
(9) Dept/Svc:	(10) Assoc Investigators:
(11) Key Words: Thalassemia-hemoglobin variants	Joseph Lima, DAC

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 2/83 b. Review Results: ongoing
c. Number of Subjects Enrolled During Reporting Period: 40
d. Total Number of Subjects Enrolled to Date: 40
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None.

(15) Study Objective:
To establish phenotype and genotype in patients with microcytic hypochromic anemia due to imbalance in globin chain synthesis.

(16) Technical Approach:
Patients with (a) hypochromic-microcytic anemai (b) patients whose hemoglobin electrophoretogram reveals a variant hemoglobin in amounts greater than 50 or less than 40% will be evaluated. Peripheral blood will be incubated with ^{14}C leucine. Alpha/beta globin synthetic ratios will be calculated.

(17) Progress: Since the inception of the study, 60 patients were evaluated resulting in the identification of the following conditions: HbC/alpha thalassemia HbS/beta plus thalassemia HbS/beta 0 thalassemia, HbH disease,*2 cases of acquired HbH disease alpha-thalassemia - 1 and type II normal HbA_2 - beta plus thalassemia. Active consultation is provided, in selected case to the Staff Division of Hematology, University of Colorado Medical Center, Denver, under this protocol. In FY 1983 and in collaboration with investigators at the University of Oxford, U.K., and the University of California, San Francisco, work is continuing on the definition of the molecular lesion in the zeta-alpha globin gene complex of isolated chromosomes #16 of three patients who represent a new syndrome of hemoglobin H disease with mental retardation.

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 78/650

SERVICE Clinic DEPARTMENT Primary Care & Community Medicine

Boehme WM, Piira TA, Kurnick JE and Bethlenfalvay NC: Acquired hemoglobin H in refractory sideroblastic anemia: A preleukemic marker. Arch Int Med, 138:603-606, 1978.

Weatherall DJ, Higgs DR, Bunch MB, Old JM, Hunt DM, Pressley L, Clegg JB, Bethlenfalvay, NC, Sjolin S, Koler RD, Magenis E, Francis JL and Bebbington, D: Hemoglobin H disease and mental retardation. A new syndrome or a remarkable coincidence? New Eng J. Med 305:607, 1981.

Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 80/650 (3) Status: ongoing

(4) Title: The Ontogenesis of Hemoglobin in the American Opossum (Didelphis Virginia).

(5) Start Date: 18 March 1980	(6) Est Compl Date: Indefinite
(7) Principal Investigator: Nicholas C. Bethlenfalvay, MD, DAC	(8) Facility: FAMC
(9) Dept/Svc: Primary Care	(10) Assoc Investigators: J.E. Lima, DAC; T. Waldrup, DAC
(11) Key Words: Opossum Hemoglobin; Red Cell Energy Metabolism; Methemoglobin formation & Reduction	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: 4/83 b. Review Results: ongoing
c. Number of Subjects Enrolled During Reporting Period: NA
d. Total Number of Subjects Enrolled to Date: Na
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:

This is a continuation of a previous Clinical Investigation study that was completed in June 1975. The overall objective is to follow and define the kinetics of methemoglobin reduction of opossum hemoglobin, in specific, as part of the overall energy metabolism of the red cell of this species.

(16) Technical Approach:

In-vivo and in-vitro reduction of nitrite induced methemoglobinemia will be followed hourly by quantitative, electrophoretic and spectroscopic means. Methemoglobin reductases will be quantitated and electrophoretically demonstrated, and compared to human reductases.

(17) Progress: Opossum Hb was found to oxidize faster than human Hb in solution, the converse was observed on intact, glucose depleted erythrocytes even at acidic pH. Although opossum red cells were shown to be permeable to glucose, they did not require this substrate for methemoglobin reduction in-vitro methylene blue was found to accelerate methemoglobin reduction on intach opossum erythrocytes at a rate exceeding that seen in human erythrocytes. This reaction, in contrast, was shown to be dependent on glucose in the red cell environment. In FY 1983, work has been completed on the utilization of 6,5 and 3 C carbohydrates and purine nucleosides as substrates for lactate and ATP in intact erythrocytes.
(Submitted for publication)

PUBLICATIONS for FY 83 Annual Progress Report Proto No. 80/650

SERVICE Clinic DEPARTMENT Primary Care & Community Medicine

Petty C, Bethlenfalvay NC and Bageant T.: Spectrophotometric measurement of hemoglobin oxygen saturation in the Opossum, Didelphis Virginiana. Comp. Biochem. Physiol, 50:273, 1975.

Bethlenfalvay NC, Block, M and Brown GB: Hemoglobins of the Opossum (Didelphis Virginiana Kerr) I. Developmental changes from yolk sac to definitive erythropoiesis. Lab. Animal Sci, 26:106-165, 1976.

Bethlenfalvay NC, Brown GL and Waterman M: I. Hemoglobins of the Oppossum (Didelphis Marsupialis) II. Electrophoretic and Chromatographic observations. Lab Animal Sci, 26:908-912, 1976.

John ME, Bethlenfalvay NC and Waterman MR: Oxidation - reduction properties of the hemoglobin of the opossum Didelphis Virginiana. Comp. Biochem. Physio. 73B:585-591, 1982.

Bethlenfalvay NC, Waterman MR, Lima JE and Waldrup T: Cystolic and membrane-bound methemoglobin reductases in erythrocytes of the opossum Didelphis Virginiana. Comp. Biochem. Physiol. 738:594, 1982.

Bethlenfalvay NC, WAterman MR, Lima JE, Waldrup T: Comparative aspects of methemoglobin foration and reduction in *opossum Didelphis Virginiana* and human erythrocytes. Comp. Biochem. Physiol. 75A:635-639, 1983.

Presentations: none

NURSING

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/702 (3) Status: Completed

(4) Title: The Incidence of Headaches Following Spinal Anesthesia by Comparing the Hyperextended Head Position Versus the Traditional Flexed Position.

(5) Start Date: 1 January 1982

(6) Est Compl Date: 31 August 1983

(7) Principal Investigator:
CPT Robert A. Arndt
CPT Gary S. Kauffold
CPT Frank M. Nash
CPT Michael J. Sutter

(8) Facility: FAMC

(9) Dept/Svc: Nursing/Anesthesia

(10) Assoc Investigators:

(11) Key Words:
spinal headache
positioning for spinal anesthesia

(12) Accumulative MEDCASE:*

(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Nov 82 b. Review Results: ongoing

c. Number of Subjects Enrolled During Reporting Period: 52

d. Total Number of Subjects Enrolled to Date: 52

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". none noted

(15) Study Objective: To determine if placement of the patient in the hyperextended head position versus the traditional flex position during the induction of spinal anesthesia will change the incidence of spinal headaches.

(16) Technical Approach: Patients who consented to participate in the study and met the screening criteria established prior to the initiation of the study were placed on the operating room table in either the lateral decubitus or sitting position. Subjects in the experimental groups had their head hyperextended as far as was comfortably possible. Subjects in the control group had their head placed in the flexed position, chin to chest. From this point, the remaining management of all subjects coincided with the standard procedure for administering spinal anesthesia and medical management of any patient undergoing spinal anesthesia as required.

(17) Progress: The present study was completed on 31 August 1983. Currently, the results are being analyzed and the process of fulfilling the requirements established by the School of Nursing Anesthesia is being undertaken.

PUBLICATIONS and PRESENTATIONS: none

FAMC TENANT

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/800 (3) Status: Ongoing

(4) Title: The Health Evaluation Project (of the OCHAMPUS Employee Health Promotion Program)

(5) Start Date: March 15, 1983	(6) Est Compl Date: November 15, 1984
(7) Principal Investigator: William H. Hendrix, Ph.D.	(8) Facility: FAMC
(9) Dept/Svc: Organizational wide	(10) Assoc Investigators: Alex R. Rodriguez, MD
(11) Key Words: Health Promotion, Path Analysis, Wellness	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: 208

d. Total Number of Subjects Enrolled to Date: 208

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective:

The major objective is to establish what individual, organizational, and extra-organizational factors are predictive of stress, coronary artery disease potential, and desired organizational outcomes - i.e., increased productivity and decreased turnover and absenteeism. In turn, modification of these factors and their resulting effects will be assessed over time from the identified dependent variables (measured stress, indexed potential for developing CAD, and desired organizational outcomes).

(16) Technical approach: Evaluation of data will be in the form of path analyses to establish relationships between factors leading to stress and in turn to health-related and organizational factors. A pretest, post-test design will be used to establish effectiveness of interventions employed such as stress management and exercise.

(17) Progress: For FY 83, Optical Scan answer sheets and associated computer programs to process the data have been completed. A self score answer sheet to be used with the Health Assessment Package was developed as were two feedback booklets. These booklets provide subjects with an explanation of each factor obtained from their self score answer sheet and for a computer-generated feedback personalized feedback printout provided after the data are inputted to the computer for processing. Initial regression,correlational,and factor analyses have been completed and the results presented to OCHAMPUS personnel during posttest 1 in September 1983.

Publications and Presentations: none

MEDDAC

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/900 (3) Status: Ongoing

(4) Title: A Protocol to Detect Coronary Artery Disease in a Young Asymptomatic Population

(5) Start Date: July 27, 1982	(6) Est Compl Date: May 1985
(7) Principal Investigator: Lytt Gardner, Ph.D. MAJ Wayne Ledner, Ph.D.,M.D.,MC James Vogel, Ph.D. CPT Sandra Yaney, ANC (continued)	(8) Facility: FAMC Munson Army Community Hospital Ft. Leavenworth, KS Command & General Staff College Ft. Leavenworth, KS (continued)
(9) Dept/Svc: Medicine/Cardiology	(10) Assoc Investigators: MAJ Arden Ashton, M.D., MC COL Julius Bedynek, M.D., Ph.D., MC CPT Ernest Dagenhardt, ANC MAJ William Daniels, Ph.D., MSC (continued)
(11) Key Words: cardiovascular screening/CHD CAD	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Aug 83 b. Review Results: Ongoing

c. Number of Subjects Enrolled During Reporting Period: 927

d. Total Number of Subjects Enrolled to Date: 1,776

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: The purpose of this study is to detect previously unidentified cardiovascular disease in a young asymptomatic population, using a multistaged screening method.

(16) Technical Approach: The primary screening method is the CDC's Health Risk Appraisal Cardiovascular Risk Score, as well as the presence of other cardiovascular risk criteria. The second stage involves a maximum symptom-limited graded exercise test and medical evaluation. Further evaluation of abnormal findings includes nuclear studies and/or coronary angiography.

(17) Progress: In FY 82 the first CGSC class was screened: a total of 927 subjects underwent the primary screen, 117 completed the secondary screen, 2 underwent angiography and 11 received nuclear and other noninvasive studies. No coronary disease was identified. There were no CV deaths reported in the studied group (Active Duty and Reserves).

In FY 83 the second CGSC class was screened: a total of 849 subjects underwent the primary screen, 381 completed the secondary screen, 9 will be sent for coronary angiography and 27 others will be sent for nuclear or other noninvasive studies. So far one case of mitral valve prolapse has been identified by angiography.

CONTINUATION SHEET for FY 83 ANNUAL PROGRESS REPORT Proto No. 82/900

(7) continued: MAJ Jerel Zoltick, M.D., MC

(8) continued: USARIEM
Natick, MA

OTSG
HQDA
Washington, D.C.

(9) continued: LTC Richard C. Davis, M.D., MC
COL Lowman Gober, M.D., MC

PUBLICATIONS:

1. Daniels, W., Patton, Zoltick, J., Yaney, S., Glaser, K. and Bedynek, J.: Risk Factors and Coronary Disease in an Under-40 Age Military Population. (Abst) Accepted for Publication, NATO Report, 1983.

PRESENTATIONS:

1. Daniels, W., Patton, Zoltick, J., Yaney, S., Glaser, K. and Bedynek, J.: Risk Factors and Coronary Disease in an Under-40 Age Military Population. Presented: NATO Research Study Group on Physical Fitness, Brussels, Belgium, September 1983.

2. Zoltick, J.M.: The Utility of the Chest Pain Questionaire in Young Healthy Males for Detection of Coronary ARtery Disease. Presented: Army Cardiology Meeting, Augusta, GA, May 1983.

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/900 (3) Status: Terminated

(4) Title: Oral Rehydration Therapy

(5) Start Date: Feb 83	(6) Est Compl Date: December 1983
(7) Principal Investigator: Stephen Inscore, MD CPT, MC	(8) Facility: FAMC Irwin Army Hospital, Ft. Riley, KS
(9) Dept/Svc: Pediatric	(10) Assoc Investigators:
(11) Key Words: rehydration dehydration (ORT)	
(12) Accumulative MEDCASE:*	(13) Est Accum OMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: To determine if oral rehydration therapy (ORT) is an effective alternative to standard parenteral rehydration in cases of mild to moderate dehydration in well nourished young children suffering from vomiting and/or diarrhea.

(16) Technical Approach: Subjects selected for this study will be children, 3 months to 10 years of age, either sex, from the Pediatric Clinic, Irwin Army Hospital. Approximately 30 children will be studied. Inclusion criteria will be dehydration secondary to vomiting and/or diarrhea. Evaluation prior to entry to the study will include routine history and physical examination. Subjects will be assigned to treatment groups A or B. Patients will be removed from the study when oral rehydration therapy is considered a failure or at parent's request, including patient's refusal to take ORT, initial signs of dehydration persisting beyond 8 hours of ORT or evidence of dehydration returning during maintenance therapy.

(17) Progress: This study has been terminated due to the principal investigator's PCS move to another medical facility.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/902 (3) Status: Ongoing

(4) Title: **Training Study, Emergency Medical Procedures**

(5) Start Date: **November 1982**	(6) Est Compl Date: **Indefinite**
(7) Principal Investigator: **Matthew J. Walsh, M.D.** **LTC, MC**	(8) Facility: FAMC **Ft. Carson Veterinary Activity** **Ft. Carson, CO**
(9) Dept/Svc: **Emergency Med & Ped.**	(10) Assoc Investigators: **William Black, LTC, MC**
(11) Key Words: **emergency medicine procedures**	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: **Apr 83** b. Review Results: **ongoing**

c. Number of Subjects Enrolled During Reporting Period: **NA**

d. Total Number of Subjects Enrolled to Date: **NA**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **none**

(15) Study Objective: **This project is a refresher/teaching course in emergency medicine operative procedures. It is conducted on a quarterly basis for ER physicians and P.A.'s.**

(16) Technical Approach: Anesthetized animals are subjected to common emergency room operative procedures. At the end of the exercise they are terminated by lethal injection.

(17) Progress: This has been a beneficial exercise in maintaining physicial skills in technical procedures done infrequently, but in extreme emergencies on real patients.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/903 (3) Status: Ongoing

(4) Title: **Stabilization of Hemoglobins and Hematocrits in Females Traveling from Lower to Higher Elevations**

(5) Start Date: **May 1983**	(6) Est Compl Date: **May 1984**
(7) Principal Investigator: **Linda S. Wallace, CPT, ANC**	(8) Facility: FAMC **Fort Carson Army Hospital** **Ft. Carson, CO**
(9) Dept/Svc: **OB-GYN & Pathology**	(10) Assoc Investigators:
(11) Key Words: **higher altitudes** **adaptation time** **hemoglobin level** **hematocrit level**	
(12) Accumulative MEDCASE:*	(13) Est Accum CMA Cost:*

*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: **NA** b. Review Results: **NA**

c. Number of Subjects Enrolled During Reporting Period: **NA**

d. Total Number of Subjects Enrolled to Date: **NA**

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". **NA**

(15) Study Objective: **To establish baseline hemoglobin and hematocrit levels of transcient (incoming) females both pregnant and nonpregnant at an altitude over one mile allowing for bodycompensation time and reinforce the time of stabilization. This would standardize care in as much as doctors could treat females with bleeding disorders and anemias in pregnancy with more consistency within a transcient population such as in the military as well as to note whether or not pregnant females require more time to adjust to the higher altitude since their bodies are under stress at this time.**

(16) Technical Approach: Participants will be screened for eligibility before entering the study. Three hematological studies will be done: at time of entrance to study, at four to six weeks, and lastly at ten to thirteen weeks. Results will be compared to findings from a Denver study documenting adjustment levels and rates for a predominantly male population.

(17) Progress: As yet the data is inconclusive. The population is not adequate in numbers to do any comparison. It is the contention of this principal investigator that transient populations can and do adapt within a three month period. It is expected that acclimation times are similar to those of the Denver study. The only deviations expected are those found routinely between male and female hemoglobin and hematocrit levels.

Publications and Presentations: none

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 83/904 (3) Status: Ongoing

(4) Title: Activated Charcoal and Phototherapy in the Treatment of Neonatal Jaundice

(5) Start Date: August 1983	(6) Est Compl Date: December 1984
(7) Principal Investigator: Stephen Inscore, MD CPT, MC	(8) Facility: FAMC Munson Army Hospital, Ft. Leavenworth,KS Irwin Army Hospital, Ft. Riley, KS
(9) Dept/Svc: Pediatric	(10) Assoc Investigators: Steven Eadline, MD CPT, MC
(11) Key Words: charcoal phototherapy hyperbilirubinemia jaundice	
(12) Accumulative MEDCASE:* *Refer to Unit Summary Sheet of this report.	(13) Est Accum OMA Cost:*

(14) a. Date, Latest HUC Review: NA b. Review Results: NA

c. Number of Subjects Enrolled During Reporting Period: NA

d. Total Number of Subjects Enrolled to Date: NA

e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". NA

(15) Study Objective: To examine the effectiveness that oral activated charcoal has in limiting the severity of nonphysiologic hyperbilirubinemia in otherwise normal newborns treated with phototherapy.

(16) Technical Approach: Term newborns who are otherwise normal except for nonphysiologic jaundice will be alternately placed into a group receiving phototherapy alone and in combination with charcoal. Parameters will be measured to determine in the combination of charcoal and phototherapy will enchance elimination of bilirubin.

(17) Progress: Currently no patients have been enrolled in this study due to short staffing in the nursery and unavailable monitoring devices. These problems will soon be rectified and patients will be enrolled starting March 1984 from both Ft. Leavenworth and Ft. Riley.

Publications and Presentations: none

CIVILIAN HOSPITALS

FAMC A.P.R. (RCS MED 300) Detail Summary Sheet (Ref. HSCR 40-23, as amended)

(1) Date: 30 Sep 83 (2) Protocol WU#: 82/950 (3) Status: Ongoing

(4) Title:

Case-Control Study of Invasive Cervical Cancer

(5) Start Date: June 1, 1982	(6) Est Compl Date: May 31, 1984
(7) Principal Investigator: **Richard F. Hamman, M.D., Dr. P.H.**	(8) Facility: FAMC **University of Colorado Health Sciences Center**
(9) Dept/Svc: UCHSC	(10) Assoc Investigators: **David A. Savitz, Ph.D.** **John W. Berg, M.D.**
(11) Key Words: **Cervical cancer, epidemiology**	

(12) Accumulative MEDCASE:* (13) Est Accum OMA Cost:*
*Refer to Unit Summary Sheet of this report.

(14) a. Date, Latest HUC Review: Sep 83 b. Review Results: Ongoing
c. Number of Subjects Enrolled During Reporting Period: 199
d. Total Number of Subjects Enrolled to Date: 199
e. Note any adverse drug reactions reported to the FDA or sponsor for studies conducted under an FDA-awarded IND. (May be continued on a separate sheet, and designated as "(14)e". None

None

(15) Study Objective:

Examine factors suspected of being etiologically related to cervical cancer including cigarette smoking, diet, sexual history, reproductive history, and sexually transmitted diseases.

Technical Approach:

Patients with invasive cervical cancer or carcinoma in situ and healthy controls are being interviewed to ascertain their exposure history for agents suspected of being related to cervical cancer risk. In addition, interviewed subjects are asked to provide a blood sample for nutritional and virological assays.

Progress:

Since the inception of the study (June, 1982), we have obtained access to patient populations at nearly all of the 30 hospitals within a 70-mile radius of Denver. As of September 30, 1983, 104 patients with invasive cervical cancer were identified who were eligible to be interviewed, 152 patients with carcinoma in situ, and 73 health controls. As indicated earlier, 199 patients have been interviewed including 60 invasive cases, 100 in situ cases, and 39 controls. Blood samples have been drawn on nearly 100 of these respondents. Data coding, entry, and analysis will be conducted by the National Cancer Institute with results emerging late in 1984.

ications and Presentations: none

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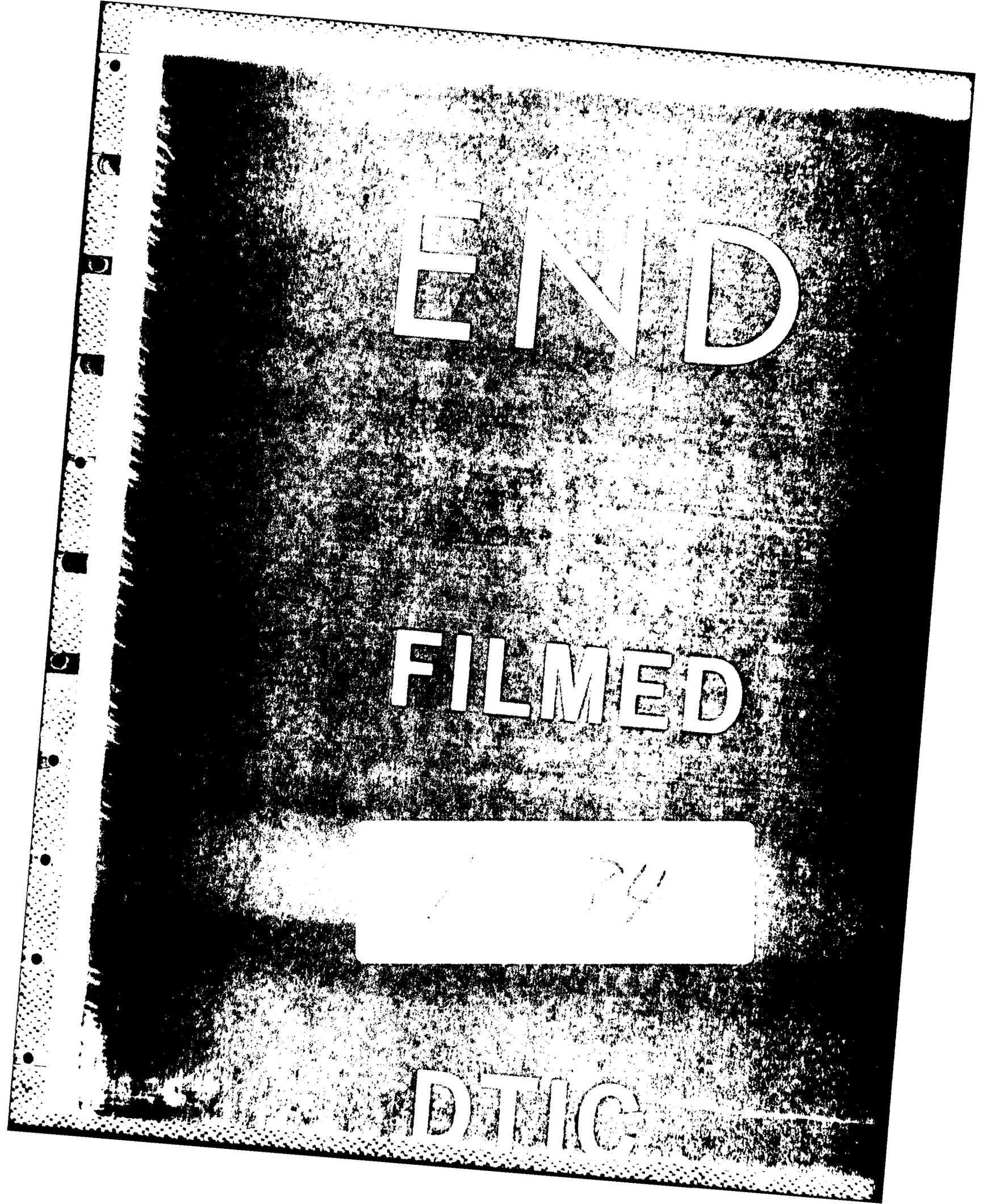
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